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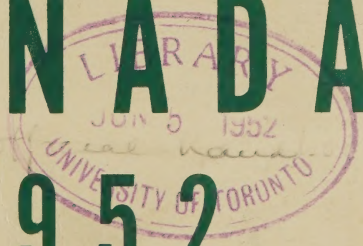
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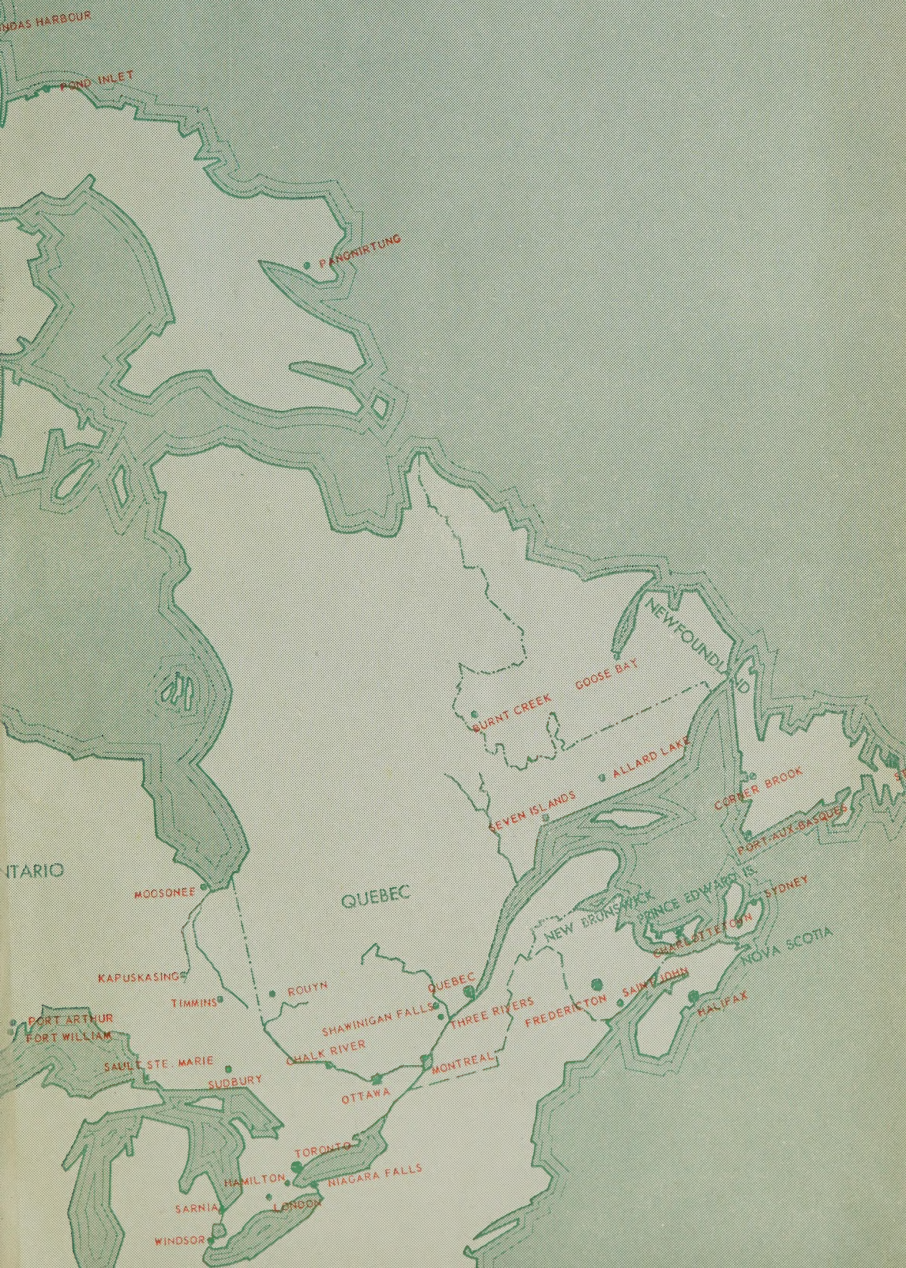




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## CANADA







Her Royal Highness the Princess Elizabeth and  
His Royal Highness the Duke of Edinburgh on their  
tour of Canada, October 8 to November 12, 1951.





# CANADA 1952<sup>1953</sup>

THE OFFICIAL HANDBOOK OF PRESENT  
CONDITIONS AND RECENT PROGRESS

PUBLISHED BY THE AUTHORITY OF  
THE RIGHT HONOURABLE C. D. HOWE  
MINISTER OF TRADE AND COMMERCE

PREPARED BY THE  
DOMINION BUREAU OF STATISTICS  
DEPARTMENT OF TRADE AND COMMERCE  
OTTAWA

594787

13.10.54

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.  
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY  
OTTAWA, 1952





CANADA MOURNS THE PASSING OF  
HIS BELOVED MAJESTY, KING GEORGE THE SIXTH,  
WHOSE SENSE OF DUTY AND QUALITIES OF COURAGE,  
FAITH AND STEADFASTNESS WON FOR HIM THE  
UNIVERSAL AFFECTION AND ADMIRATION OF HIS  
PEOPLES THE WORLD OVER.



## Foreword

THE *Canada Handbook Series* was initiated in 1930 to supplement the field of *The Canada Year Book* by offering to teachers and pupils in the public schools and to Canadian citizens generally a brief and attractive record of current economic conditions at a price within the reach of all. The Year Book is primarily a detailed reference work and is not designed to meet the need for a popular medium of this kind.

The past two decades have seen expansion of the national economy in every direction and, since a considerable proportion of space in the Handbook is allocated to illustrations, the editorial task of giving a well-balanced presentation in a publication of this size and at low cost becomes more difficult each year. Currently many thousands of copies are being distributed abroad through our Diplomatic and Trade Commissioner Services and it is desirable for this reason alone that the Canadian economy should be explained fairly completely.

A handwritten signature in dark ink, reading "C. D. Howe". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

*Minister of Trade and Commerce*

OTTAWA, February 1, 1952.





## Prefatory Note

**T**HIS Handbook has been prepared and edited in the Year Book Section of the Dominion Bureau of Statistics from material that has been obtained from the different Divisions of the Bureau and from Departments of the Federal Government. In certain special fields information has been kindly contributed by other Services.

The Handbook is planned to give a balanced picture of the general economic and social structure of Canada, the weight of emphasis being placed from year to year on those aspects that are currently of most importance, since there is not space to deal adequately with all. Chapter material has been revised and brought up to date as of the time of going to press. The leading special articles in this edition deal with "Canada in the Chemical Age" and "Canada's Defence Program". The former was prepared in the Chemicals and Explosives Division, Department of Defence Production, by C. J. S. Warrington, while the latter was contributed by the Department of National Defence with the collaboration of Defence Production.

*H. Marshall*

Dominion Statistician



# Acknowledgments

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Grateful acknowledgment is also made to the following sources for their assistance in supplying photographic material:—

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Hudson's Bay Company	<i>Western Business and Industry</i>

## Symbols

The interpretation of the symbols used in the tables throughout this publication is as follows:—

.. figures not available	-- amount too small to be expressed or where a "trace" is meant
... figures not appropriate or not applicable	P figures are preliminary.
— nil or zero	

# Contents

	PAGE
ECONOMIC CONDITIONS AT THE CLOSE OF 1951.....	9
CANADA IN THE CHEMICAL AGE (SPECIAL ARTICLE).....	19
CANADA'S DEFENCE PROGRAM (SPECIAL ARTICLE).....	31
CANADA—THE COUNTRY.....	45
THE PEOPLE.....	55
THE GOVERNMENT.....	73
HEALTH AND WELFARE—VETERANS AFFAIRS.....	81
EDUCATION—SCIENTIFIC RESEARCH.....	99
SOCIAL AND CULTURAL RELATIONSHIPS.....	113
NATIONAL INCOME—SURVEY OF PRODUCTION.....	127
PRIMARY PRODUCTION—	
Agriculture.....	137
Forestry.....	165
Mines and Minerals.....	173
Water Powers.....	181
Fisheries.....	189
Furs.....	197
SECONDARY PRODUCTION—	
Manufactures.....	203
Construction.....	217
LABOUR.....	225
TRANSPORTATION AND COMMUNICATIONS.....	239
DOMESTIC TRADE.....	259
FOREIGN TRADE.....	271
FINANCE.....	289
INDEX.....	309



GATINEAU PARK, QUE.

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*In the Gatineau Hills, a few miles north-west of Ottawa, a lovely wooded area has been preserved in its natural state as a parkland and wildlife sanctuary. It is widely enjoyed in all seasons of the year.*

---

CAPE BRETON HIGHLANDS  
NATIONAL PARK, N.S.

---

*Cape Breton is truly a beautiful island offering many splendid panoramas of sea and lake, intervals and heights of land.*

---







~~~~~ Peyto Lake, one of the gems of Banff National Park, Alberta. ~~~~

## Economic Conditions at the Close of 1951

**E**CONOMIC conditions at the close of 1951 were favourable in nearly all respects.

With few exceptions, the levels of employment, income and production were high. Toward the end of the year, partial shut-downs of various sorts occurred within such industries as textiles, automobiles and other consumer durable goods. Although the labour force was almost fully employed (less than 2 p.c. without jobs and seeking work at the time of the November 1951 survey), there were pockets of unemployment in particular localities, requiring an unusual degree of occupational mobility to overcome. From the standpoint of the entire economy, with resources in tight supply, these internal adjustments were a necessary adjunct of the new situation, in which defence production was required to play a larger part.

Despite the unavoidable difficulties of a period of adjustment, the year 1951 was one of continued expansion of production. Canadian productive facilities were able to meet the growing requirements of defence needs, the continued expansion of investment in durable plant and equipment and the impressive developments in oil, iron ore and electric power.

The gross national production of goods and services totalled over \$21,200,000,000, or approximately \$1,500 per person in the population of about 14,000,000. In addition imports of goods and services amounted to approximately \$5,600,000,000 bringing the total available supply to \$26,800,000,000. Of this total, personal expenditure took 48.6 p.c., government expenditure 11.6 p.c., investment 20.9 p.c. (including a large amount of inventory accumulation) and exports 18.8 p.c. The shares of consumers and exports were slightly lower than in the preceding year, while those of government and investment were unchanged or higher, after allowing for price changes.

Despite the large increase in imports, the reserves of gold and U.S. dollars remained at a high level. This was due mainly to an increased inflow of capital from abroad, reflecting the confidence of foreign investors in the continued stability and growth of the Canadian economy. The Canadian dollar was put on an open market basis in September 1950, and the removal of all exchange controls was completed in December 1951.

Construction of residential housing fell off markedly in the later months of the year. There had been an earlier reduction in the amounts of mortgages available and, in addition, costs of labour and materials during the first months were approximately 17 p.c. higher than in the same months of the previous year. On the other hand, construction of an engineering and structural nature continued to expand. Total public and private investment for 1951 in new residential and building construction and machinery and equipment was expected to exceed \$4,700,000,000. Moreover, there was a very large addition to inventories.



In the early part of the year, production and sales of consumer durable goods, including automobiles, were at unprecedented levels. Subsequent to the Budget of Apr. 10, 1951, in which taxes and credit terms were stiffened, there was a rapid curtailment in purchases of these items. The effect of this in the official indexes of industrial production and retail sales was to reduce the rate of increase of the over-all totals. However, the 1951 index of industrial production was estimated to be 7 p.c. above that of the preceding year and the index of the value of retail sales was estimated to be 11 p.c. higher; if allowance is made for price advances, there was a small decline in volume of sales. Agricultural production was expected to exceed 1950 by about 15 p.c. The record wheat crop was affected by unseasonable weather and, because of the lateness of harvesting and shipping operations, a large portion of the crop was left in the fields to be marketed in the spring of 1952. Farm cash income from the sale of all farm products in 1951 was 26.8 p.c. above 1950. Monthly labour income continued to grow more rapidly than production or retail sales and for the first nine months of 1951 averaged 17.2 p.c. above the same months of 1950. The cost-of-living index stood at 191 in December 1951, 11.7 p.c. above the same month of 1950.

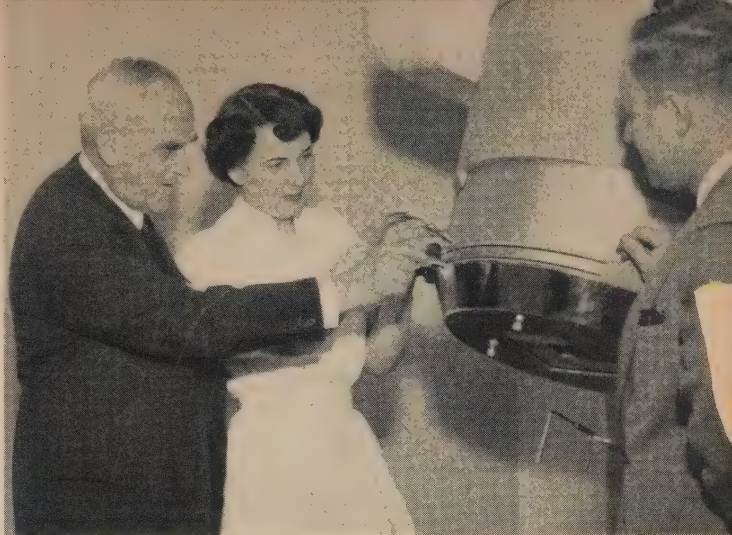
**Production and Employment.**—During the first ten months of 1951, the index of industrial production averaged 9 p.c. higher than in the comparable period of 1950. From January to May, the gain was running at the rate of about 14 p.c. but, as a result of the decline in consumer demand and materials shortages in some lines, the increase for the period June to October was only about 4 p.c. Despite this deceleration, manufacturing production in 1951 will probably equal or surpass the record wartime level of 1944. Principally as the result of large increases in output of nickel and crude petroleum, the mining index advanced to a new high during the first ten months of 1951 with a 14 p.c. gain over the same period of 1950. Preliminary figures indicate that, due mainly to the very high field-crop yield, the total volume of agricultural production in 1951 will be considerably above that of 1950 and will approach the record level established in 1942.

One indication of the recently increased tempo of Canadian resource development is the remarkable progress made in the exploitation of crude oil reserves. During the first nine months of 1951, producers shipped over 35,000,000 bbl., an amount 73 p.c. greater than the shipments in the corresponding period of 1950. The completion of the oil pipe line from Edmonton, Alberta, to Superior, Wisconsin, late in 1950 and the construction of new refineries facilitated this expansion. During the nine-month period, 38 p.c. of the oil consumed by Canadian refineries came from domestic wells, compared with 25 p.c. in the same period of 1950 and 22 p.c. in 1949.

Increased defence requirements in 1951 were a factor in the rise in output of principal metals. During the first ten months of the year, nickel production advanced 13 p.c., output of copper was up more than 3 p.c., and extensive development work on active properties led to a rise of 29 p.c. in shipments of iron ore. By contrast, lead production dropped about 7 p.c.

In the period January to October, the volume of manufacturing output rose 8 p.c. over the same months of 1950. A 13 p.c. expansion in the production of durable goods accounted for the greater part of this increase since the gain in the output of non-durable commodities was only about 5 p.c. The production during the latter part of the year of such consumer durables

The Federal Government's research program is bringing closer the day when atomic energy will be a benefit to mankind. The first Cobalt 60 Beam Therapy Unit, here being examined by the Rt. Hon. C. D. Howe, Minister of Trade and Commerce and Minister of Defence Production, was officially placed in operation at Victoria Hospital, London, Ont., in November 1951. It is the most powerful weapon yet launched in the battle against cancer.



as automobiles, electric refrigerators and washing machines declined considerably from earlier months. However, it is estimated that the output of motor-vehicles during the twelve months of 1951 will surpass the record established in 1950.

Sustained improvement in industrial activity occurred in such defence-supporting industries as iron and steel, shipbuilding, aircraft, non-ferrous metals, petroleum products and chemicals. During the first ten months, the index of iron and steel products averaged 13 p.c. higher than during the same period of 1950. Steel mills turned out a record 2,864,000 tons of ingot steel, which was nearly 5 p.c. more than in the corresponding months of the previous year. The great domestic demand for steel, particularly for heavy construction projects and growing defence requirements, caused a sharp drop in exports of primary iron and steel shapes, while imports during the first ten months jumped 56 p.c. over the same period of 1950. Thus in the ten-month comparison, the tonnage available for domestic consumption increased by 868,000 tons or 28 p.c.

The marked advance shown by the petroleum products industry reflected increased domestic demand and the advantages of expanded refining facilities. During the first nine months of 1951, net production of saleable petroleum products was more than 17 p.c. higher than in the corresponding period of 1950. Activity in the rubber industry was appreciably greater as a result of a more extensive market for tires and tubes; the consumption of natural and synthetic rubber increased by more than 8 p.c. in the same comparison. The gain in the output of the pulp and paper industry was particularly significant. During the first ten months of 1951, production of wood-pulp was 11 p.c. higher and the output of newsprint 5 p.c. higher than in the same months of 1950. A marked rise was shown in exports of pulp, which had an important bearing on production of that commodity.

Output in the textile and clothing industries rose only moderately in the period under review. While the increase over 1950 was appreciable in the earlier months, the general trend was similar to that of consumer durables and some deceleration occurred in later months. The output of tobacco



products during the first ten months declined by about 6 p.c. as a result of a combination of factors, including large pre-budget inventories of finished goods, and an August-September strike in the plants of a major producer.

A noteworthy feature of 1951 was the advance in the output of electric power, reflecting increased demand and the utilization of new generating units. The power index for the ten-month period averaged more than 13 p.c. above the same months of 1950.

Prospects in the field of industrial output are bright for the near future. The increased productive capacity which will result from the recent very high level of capital investment is not as yet fully reflected in production statistics. Huge expansion and development programs are well under way in iron ore, aluminum and other metals, oil, steel, chemicals and electric power.

In the agricultural sector, the November estimate placed the 1951 wheat crop at 562,000,000 bu., more than 100,000,000 bu. higher than the 1950 yield. However, as stated previously, a substantial proportion of the crop remains in the fields and the realization of the estimate will be possible only if this unthreshed part of the crop can be harvested without significant loss during the winter and spring months. Despite the effects of excessive moisture on the wheat crop, it is anticipated that the proportion of milling grades will be considerably higher than in 1950. New records are indicated for mixed grains and soybeans while near-record crops are in prospect for barley, hay and clover, alfalfa and sugar beets.

The trend of employment in 1951 followed a pattern similar to that of industrial output. The index of employment for nine leading industries averaged 8 p.c. higher in the ten-month comparison, with the percentage increase in the later months showing a deceleration from the earlier part of the year. The month-to-month trend, however, was generally upward and considerable gains were shown in such defence industries as shipbuilding and aircraft. On Oct. 1, the total index was 5 p.c. higher than on the same date of 1950. The number of persons without jobs and seeking work (as reported in the November labour force survey) was less than 2 p.c. of the total civilian labour force. Average hourly earnings in manufacturing rose to a new high of nearly \$1.22 at the beginning of October, representing a gain of nearly 16 p.c. over the corresponding date of 1950.

**Public and Private Investment, 1951.**—Indications are that capital expenditures in 1951 were substantially higher than in 1950. Total expenditures in the year are estimated to be in excess of \$4,700,000,000, an increase of 24 p.c. over the previous year's total. About one-half of this increase reflects higher unit costs, since there were increases both in cost of construction materials and in wage rates; however, the implied volume increase is still quite striking in view of the high levels attained in previous years. The increase has taken place despite implementation of government measures to discourage the use of resources for non-essential investment.

Very substantial investment took place in such key industries as mining, forestry, railways and manufactures of iron and steel, petroleum products, electrical apparatus and chemicals. On the other hand, investment in the trade and service industries remained at about the 1950 level. New housing construction was seriously curtailed, the result of both rising costs and of legislation increasing down-payments and raising mortgage interest rates.

Revised regulations concerning the terms of new residential mortgage financing were put into force toward the end of the year.

Outstanding developments affecting future prospects for investment took place in 1951. Especially important were the announcements that Canada would commence work on the St. Lawrence seaway project and that the United States Government had completed arrangements to construct a network of radar stations in the Canadian north.

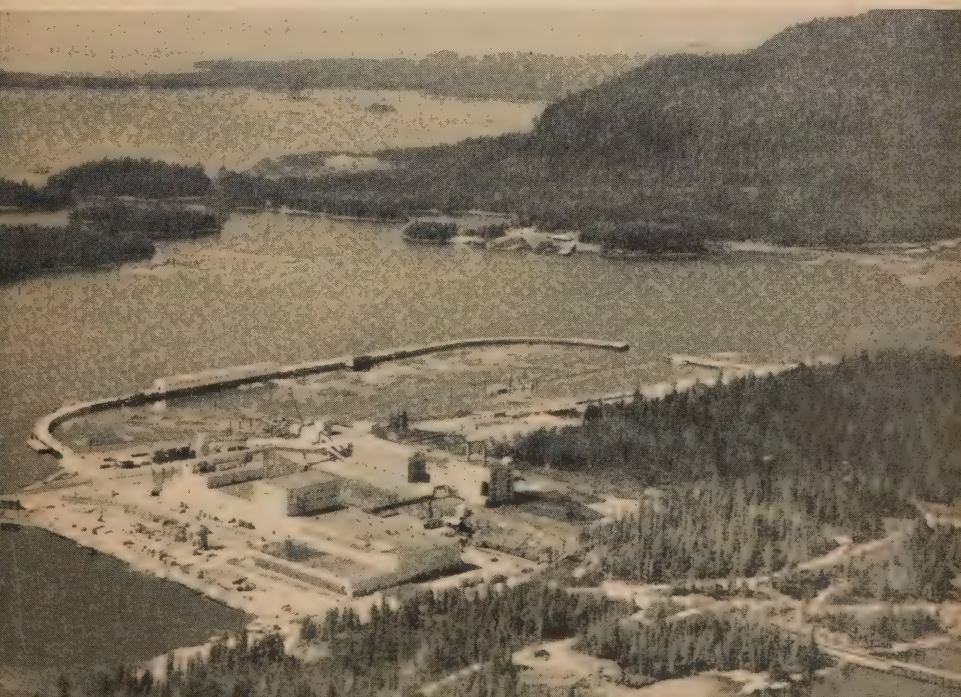
Net additions to inventory, a form of investment not included in capital expenditure, as described above, were very high in 1951, and it appeared that the increase of \$800,000,000 recorded for 1950 would be doubled in 1951. Not all of this increase represented actual resource utilization since rising price levels caused a relative inflation in year-end book values from which the net change is calculated. Nevertheless, a number of factors indicated that the actual volume of investment in inventories was very high. More stringent credit regulations caused some piling up of durable goods inventories and defence industries continued to increase their holdings in the form of raw material stocks and work-in-process on government account.

In all, it would appear that a greater proportion of resources was devoted to the acquisition of investment goods and stock-piling during the year 1951 than in any other recent year.

**Foreign Trade.**—In 1951 a sharp increase took place in the value and the volume of both exports and imports. The increase in imports, however, was much greater than that in exports, and for the first time in the post-war period a sizeable negative balance resulted from commodity trade. The

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*A new dissolving pulp plant, located near Prince Rupert, B.C., was officially opened in June 1951. The plant has an estimated annual output of 70,000 tons of pulp, sufficient raw material to produce 200,000,000 lb. of acetate yarn and staple fibre.*



total value of merchandise exports at the end of the first eleven months of 1951 was about 25 p.c. above the corresponding 1950 value. Since the volume was about 10 p.c. above that of the previous year the remainder of the value gain was due to higher prices. Value of imports in the eleven-month period was about 30 p.c. above the comparable 1950 value and the volume about 14 p.c. higher. Thus, while exports made a greater claim on Canadian resources than in the previous year, the supplement to Canadian production provided by imports was larger still.

The abolition of the emergency exchange conservation controls at the end of 1950 had some influence on the more rapid expansion of import volume than of export volume in 1951. Purchases of defence equipment and supplies contributed to the greater expansion of imports, while imports of raw materials and equipment for expanding industries (including defence industries) gained significantly. The resulting adverse balance led to no corresponding loss of exchange reserves, as there was a heavy inflow of foreign capital, particularly from the United States. New gold production also helped to finance the import balance.

Rising prices in foreign trade exerted pressure on the Canadian domestic price level, especially during the first half of the year, and this was only partly offset by the contribution to the supply of goods in Canada represented by the change from a positive to a negative trade balance. Higher import prices resulted in higher costs for domestic producers using imported materials, and higher consumer prices for imported consumer goods. Moreover, higher export prices forced Canadians to pay more to keep many Canadian goods at home. These pressures eased after the third quarter as export prices stabilized and import prices showed some decline.

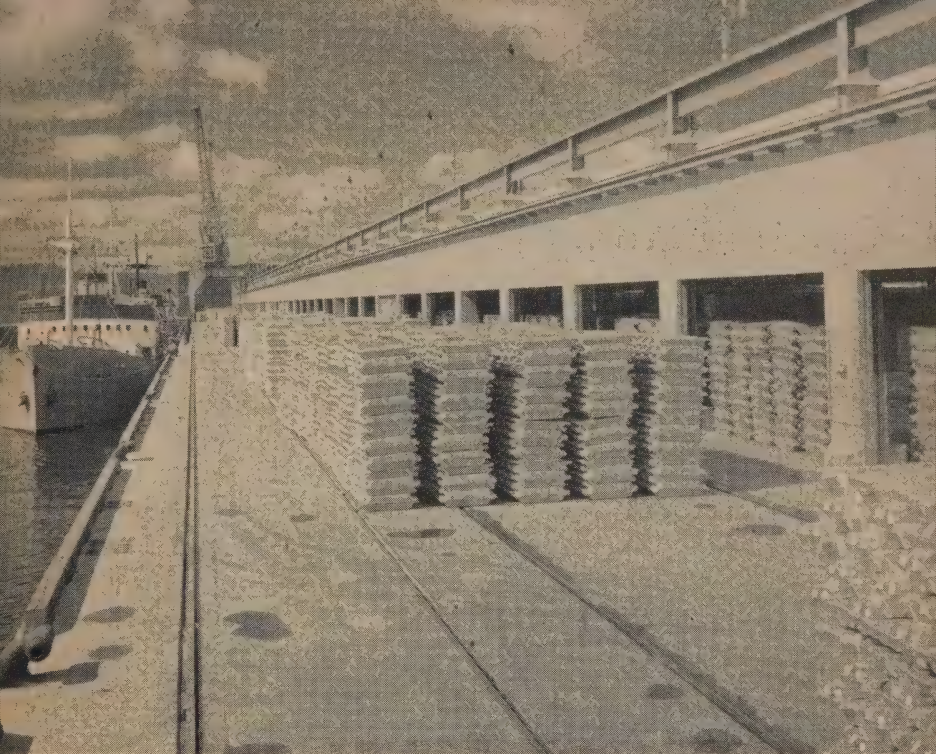
The pattern of trade that had developed in 1950 showed no further radical change in 1951; the United States took about 60 p.c. of Canada's exports in the first eleven months of the year compared with 65 p.c. in the preceding year. These shares were considerably above those of 1949.

The value of shipments to the United States was some 16 p.c. above that of the first ten months of 1950. Exports to many overseas markets expanded even more sharply than those to the United States, sales to the United Kingdom, to Western Europe and to Japan showing particularly marked increases. Dollar conservation measures had reduced shipments to the United Kingdom and to many European countries to extremely low levels in 1950; the recovery of these sales was in part a reaction to that abnormal situation. Not only did the value of sales to these areas rise sharply, but there were also significant changes in their percentage shares of exports to all countries.

European countries and the United States increased their shares in Canada's imports in 1951, the value of purchases from European countries almost doubling. Although imports from the United Kingdom continued to expand, that country's export capacity was already strained in 1950, and the increase in the value of her sales to Canada in 1951 was only about 4 p.c. Sharply higher prices inflated the value of purchases from Latin America and particularly from Commonwealth countries.

The re-direction of exports and imports after the exchange-rate readjustments of 1949 did much to resolve the old problem of bilateral imbalance in Canada's trade. A sterling surplus persisted in 1951, but compared with those of the pre-1949 period, the overseas balances were relatively small. The





*Aluminum ingots awaiting shipment at Port Alfred, Que. Canada, the second largest producer of aluminum in the world, exported 6,740,295 cwt. in primary form, valued at \$106,178,316 during the first eleven months of 1951.*

deficit with the United States was quite large in 1951 but, as already stated, it was accompanied by a heavy inflow of United States capital during the year.

**Government Economic Measures and Public Finance.**—During 1951, the demands of government for rearmament and the high levels of business investment expenditure and consumer expenditure created an inflationary pressure of serious proportions. Government policy was aimed at containing inflation and ensuring a supply of basic materials sufficient to meet defence requirements. This led to regulations or actions designed to curtail non-defence business investment, non-defence government expenditure and consumer expenditure particularly on durable goods.

To establish the desired shift in the utilization of resources, government policy was directed towards three channels—control of materials, taxation, and credit control.

The Defence Production Act of Mar. 9, 1951, established the Department of Defence Production to execute the procurement and control functions of the defence program. The Act gave the Minister power to acquire, hold, dispose of, manufacture or produce defence supplies; to operate facilities for defence purposes and to stock-pile strategic raw materials. In the course of the year, steel, aluminum, copper, brass and nickel came under the

supervision of controllers, and direct allocation of these materials for defence projects was established.

In order to discourage non-essential investment projects, the government ruled that depreciation could not be charged for a period of four years on all capital assets acquired after Apr. 10, 1951, with the exception of certain classes of assets defined in the regulations (e.g., electricity, gas and water-works, telegraph and telephone services, pipe lines, and those assets used by individuals in farming, fishing, and professional services), and certain additional kinds of assets when certified as eligible by the Minister of Trade and Commerce. In the latter group were those required for defence purposes, for the production and distribution of primary products in certain basic industries, or for direct use in transportation and communication businesses.

In the Budget of Apr. 10, 1951, a surcharge of 20 p.c. on personal income taxes and corporation income taxes was announced. The sales tax was raised from 8 p.c. to 10 p.c., and excise taxes on motor-cars, radios, certain household electrical appliances, cameras and other articles was raised from 15 p.c. to 25 p.c. At the same time, a tax of 15 p.c. was imposed on all mechanically operated refrigerators and washing machines and on domestic cooking stoves.

The Consumer Credit Act, effective Mar. 19, 1951, raised down-payment requirements on automobiles and other goods and lowered the time limit for payment from 18 months to 12 months.

Early in the year, the interest rate to the borrower on government-assisted residential housing mortgages was raised from  $4\frac{1}{2}$  p.c. to 5 p.c., and down-payment requirements were increased. As a result of these measures and of other factors, construction contracts for new houses fell off rapidly after March. Toward the end of the year, the National Housing Act was revised to incorporate a new schedule of lending values which were designed to ease down-payment requirements.

The Bank of Canada in the course of periodic discussions of credit conditions with the chartered banks had stressed the increasing need for restraint in lending activity. In February, the Bank expressed the view that further increase during 1951 in the aggregate volume of chartered bank loans and holdings of non-government securities would be undesirable and should be prevented. The chartered banks concurred that an inflationary expansion of credit was undesirable and agreed to co-operate to this end.

Federal Government revenues for the nine months ended Dec. 31, 1951, were \$2,804,000,000 compared with \$2,050,000,000 for the same period of 1950. Increases in import duties and excise taxes accounted for \$261,000,000 of the gain, while individual income taxes and corporation income taxes increased by \$238,000,000 and \$270,000,000, respectively, over 1950.

Total Federal Government expenditure for the nine months ended Dec. 31, 1951, was \$2,083,000,000 compared with \$1,628,000,000 for the same period of 1950. Almost all of this increase was due to defence expenditures, which rose to \$789,000,000 from \$373,000,000 in the previous year. The increase of \$39,000,000 in non-defence expenditures was due largely to increases in provincial subsidies and tax rental payments, family allowance payments, and government contributions for unemployment insurance, old age pensions and health grants to provinces. Defence expenditures were increasing monthly, the December expenditure being \$105,000,000.

The budgetary surplus until the end of December 1951 of \$721,000,000 was utilized by increasing the government cash balance, reducing debt and extending loans to, or investing in, crown agencies.

On Dec. 14, 1951, the Minister of Finance announced the abolition of foreign exchange control. The Government will continue to administer its own foreign exchange reserves, but no limitations will be imposed upon amounts of foreign currencies required for trade or investment.

**Domestic Prices.**—Between Nov. 1 and Dec. 1, 1951, the cost-of-living index changed direction for the first time in 23 months, dropping 0·1 to 191·1 at Dec. 1. This halt in a previously continuous increase was due to declines in certain food prices, notably of pork products. At the level of 191·1, the total index was 11·7 p.c. above the figure of 171·1 for the same date of a year previously. For the entire year, the index averaged 184·5 p.c., 10·8 p.c. above the average of 1950. Commodity prices rose more rapidly than the prices of such services as rents, light and medical care, which are usually more stable in time of price fluctuation. Food prices rose considerably, accounting for 47 p.c. of the total increase.

The general wholesale price index showed a distinct levelling off after mid-year and actually declined in several of the later months, following world-wide price declines of selected commodities in earlier months. The farm products price index declined as a result of the decline in prices for animal products and as a result of the reduced initial payment price for wheat. For the year as a whole, however, the general wholesale index was 14·p.c. above 1950 and the farm products price index was 11 p.c. above 1950.

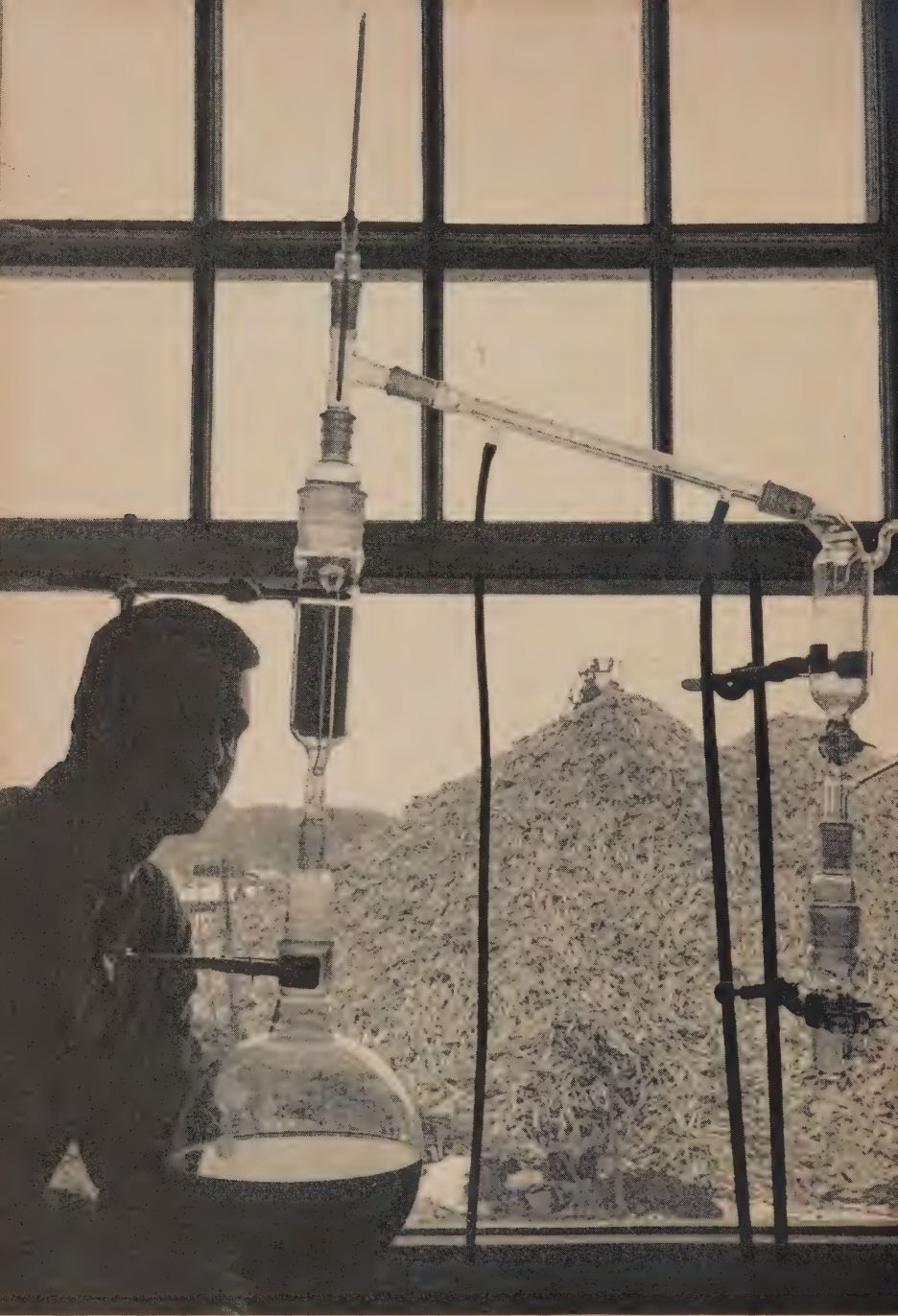
The stock market also showed a tendency to level off toward the later months of the year. For the year as a whole, the investors' stock price index was 2·8 p.c. above the preceding year.

**Personal Income and Expenditure.**—Continued high levels of employment combined with rising wage rates resulted in increases in monthly labour income throughout the year. By the end of September, the total had reached over \$7,000,000,000, 17 p.c. above the same period of 1950. All other forms of personal income, including professional income, income of individual enterprisers such as storekeepers and tradesmen, income from property, income from investments and income of farm operators from current farm production continued to grow. Accrued income of farm operators from farm production was high as a result of large crops and record prices for live stock.

Although income showed continuous growth, spending of income followed a less regular course. Consumer spending advanced rapidly during the first quarter of the year but levelled off during the second and third quarters. This slowing down was mainly in the field of durable goods such as automobiles, household appliances and furniture, and of semi-durables such as clothing and footwear. For the year as a whole, total personal expenditure on consumer goods and services was approximately 10 p.c. above 1950. Since prices increased by slightly more than that amount, the volume remained about the same.

There was a considerable increase in personal disposable income over 1950, even though personal direct taxes increased during the year. It was estimated that personal savings at the year end would be double the 1950 amount.





*In Canada, the manufacture of pulp and paper is the largest of the industries dependent on chemical processes and chemical control. Among other products of chemical processing are fertilizers, explosives, metals, petroleum and vegetable oils, textile fibres, rubber, sugar, soap, paint, coke and gas, glass, artificial abrasives, and primary plastics.*

# Canada in the Chemical Age

THIS is sometimes referred to as the Chemical Age, and most people are keenly aware of the extent to which chemical products now affect their daily lives. They know that within living memory there were few plastics, little of light-weight metals and alloys, no nylon, man-made rubber, D.D.T., chemical weed-killers, sulphur drugs, synthetic detergents, anti-knock gasoline, chemical antifreeze, colour movies or quick-drying paints and enamels. It is recognized that these and many other benefits have resulted from chemical research carried out in the past few decades.

The chemical industry is a dynamic factor in present day industrial progress because, through constant research, it evolves entirely new kinds of matter. These new synthetics often lend themselves to mass production and better service, resulting in greater productivity and higher living standards. As synthetic plastics, rubber and fabrics, tend more and more to replace and supplement natural products in clothing, personal utilities, house furnishings and industrial equipment, they add variety, colour and convenience to almost every phase of modern living. However, many of the widespread benefits that result from the application of chemistry to industry are not apparent in the everyday products available to the public. Chemical operations often accelerate and simplify steps in manufacture several stages removed from the end product.

**Chemical Invention and National Development.**—It may be said that every age has been a chemical age; by trial and error, men learned to effect chemical changes in natural products to make more useful forms. The smelting of iron, the burning of lime, the ashing of wood and the use of the ashes to make soap with fats, and even the growing of food were all chemical processes applied at first with little or no understanding of their chemical nature. It is only within the past hundred years or so that enough has been known of the chemistry of these and other processes to make general use of the principles of this science in industry. It is significant that this has also been the period during which Canada has grown from a pioneering country to an important industrial nation.

Even to those not technically trained it is possible to identify certain phases of Canada's progress with developments in science. The dynamo, the internal combustion engine, the telephone and other mechanical and electrical inventions are well known as factors, but less familiar is the impact of such chemical discoveries as dynamite on railroad building, mining and construction; chemical flotation and refining in the recovery of metals; electro-chemistry on the production of alloys, abrasives, phosphorus, calcium carbide and other essential chemicals in many industries; the chemical treatment of wood products on paper and rayon; the production of fertilizers from natural gas and smelter fumes, on agriculture; and the large-molecule building process called polymerization, which gives us synthetic rubber, fibres and resins, on the automobile, textiles and plastics manufacturing industries.

The chemicals and allied products industries of Canada are not located in any one dense industrial area but are widely distributed. Where power supplies and low-cost raw materials are not major factors, as in the case of pharmaceuticals and fine chemicals, plants tend to be built in or near the large population centres, chiefly in Ontario and Quebec.

However, because of Canadian geography and the cost of freight many of the Canadian heavy chemical plants are to be found either at or near the site of natural resources or at a point where there is ready access by water to imported supplies. Electrochemical industries are usually near to water power as at Arvida, Beauharnois, Buckingham and Shawinigan Falls, Que; or Niagara Falls, Ont. Mineral resources have dictated the location of the alkali industry of western Ontario over or near the salt beds of that area; the chemical industry at Copper Cliff, Ont., and Trail, B.C., is dependent on base metal smelter fumes which must be converted to acid at the point of production. In the latter case, the absence of an adequate western market for sulphuric acid requires that this product be converted to chemical fertilizers; which may profitably be shipped for greater distances. The synthetic rubber and chemicals industries of Sarnia, based as they are on non-transportable refinery "light-ends" gases, have been built near to Canada's largest petroleum refinery; while the by-product gases from the coke ovens associated with the steel plants at Sydney, N.S., Hamilton and Sault Ste. Marie, Ont., and the coal-gas works at Toronto and Montreal have led to various heavy chemical operations at these points.

**Chemical Industry Defined.**—There are several stages by which the structure of the chemical industry may be described. In its most restricted sense, the industry is the manufacture of commodities—seldom seen by the public in their original form—which are known only by their chemical names. Such well-known products as sulphuric acid, caustic soda and ammonia belong in this classification, but there are many others. In Canada they are produced usually in large tonnages, and are referred to as "heavy chemicals". Although their use is so widespread in industry that their consumption may be used as a barometer of economic activity, they comprise in the aggregate less than 1 p.c. of the value of all Canadian manufacturing output.

For the purpose of official classification a number of industries are grouped under the title "Chemicals and Allied Products". This includes the heavy chemicals mentioned above together with coal-tar distillation products, compressed gases, fertilizers, explosives, primary plastics, pharmaceutical chemicals and a number of other industries such as soaps, paints and inks which employ chemical processes but which are not conveniently included in other classes. This group of industries has an annual output representing approximately 5 p.c. of the value of all manufactures. In 1950 the value of production reached \$636,000,000, a four-fold increase since 1939, compared with a three-fold increase for the value of output of industry as a whole. Making allowance for increased prices, the physical volume of output of the chemicals and allied products group rose 120 p.c., in that period compared with an increase of 85 p.c. for all industry. Chemical exports now exceed \$100,000,000 in value, fertilizers and synthetic resins being leading items.

There is a third group of industries which, while not classified as chemical, is equally as dependent on chemical processes as is the chemicals and allied products group. This group includes non-ferrous metal smelting and refining,



*Nylon chemical intermediates are converted into nylon polymer. This is chopped up into flake, melted and spun into yarn and staple fibre. A large plant for manufacture of nylon intermediates is now under construction at Maitland, Ont.*



*The equipment used in the manufacture of heavy chemicals such as acids and alkalies is typified by this unit, in which the nitrogen and oxygen of the air and hydrogen from water are combined to form nitric acid.*



petroleum refining, pulp and paper manufacture, fermentation products, artificial abrasives, leather, rubber, sugar, glass, etc., and its total annual value of production is close to 30 p.c. of that of all manufacturing industries. If to this group were added synthetic fibres, which are produced by chemical methods but normally classified as textiles, the total value of the output for industries using chemical methods would be more than one-third of the value of all factory output in Canada.

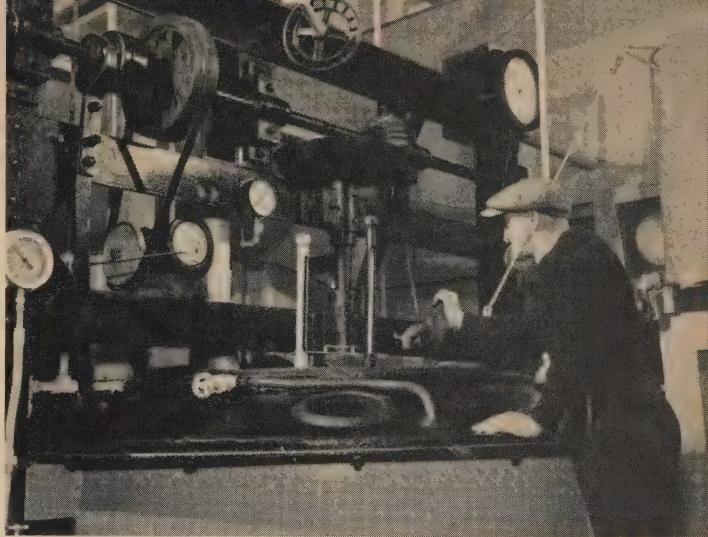
In a still wider sense virtually all industries use chemical products and processes to some extent. Agriculture has been called the "great outdoor chemical industry" because growth is a chemical process and is subject to control and protection by the use of chemical fertilizers and pesticides. The great forest-products industries are becoming increasingly dependent on chemical processes; for example, in the various chemical pulp manufacturing operations, in the use of synthetic resin adhesives in plywood manufacture, and in the chemical rot-proofing and flame-proofing of timber. The recovery of gold, zinc, copper, lead, aluminum and other metals requires highly chemical processes, and the smelting and refining industry is a large user and producer of chemicals.

The primary textiles industry, quite apart from the ever-increasing proportion of chemically made fibres it employs, is dependent on chemical scouring, fulling, bleaching, dyeing, softening, waterproofing, shrinkproofing, mothproofing, creaseproofing, mercerizing, and so on. The leather industry has changed over in recent years largely to the use of synthetic bates, tanning agents, lacquers and dyestuffs in place of natural extracts. The food products industry uses many chemical processes, for example the extraction of sugar from beets. The animal products industry uses harmless chemical preservatives; the vegetable shortening industry has been made possible by the use of hydrogenation in hardening oils and the same process has greatly increased the commercial value of the oils produced by the fishing industry. The manufacture of iron and steel products involves a great variety of chemical processes in cleaning, pickling, galvanizing, electroplating and tinning. The transportation industry owes much of its progress to fast-drying enamels, shatter-proof glass, plastic fittings, plating, anti-knock gasoline, antifreeze, longer wearing tires and light metals produced by chemical processes. Construction is turning increasingly to cements, treated wood and plastics, paints and metals of chemical origin. Even public utilities such as water purification, and public services such as laundering and dry cleaning, are today dependent on the chemical industry for essential materials and technical services.

The list could be extended into almost every corner of the Canadian industrial structure. It may be of interest, however, for the sake of perspective, to trace briefly the development of chemical products and processes in order to show how they have fitted into the pattern of Canadian history.

**The Basic Pattern—Explosives, Smelting and Fertilizers.**—As early as 1674 the Intendant of New France, Jean Talon, granted to Nicolas Follin of Quebec the exclusive right to make potash from hardwood, and this must count as the first reference to chemical production in Canada. During the 19th century this potash industry grew considerably as a result of land clearing and Canada became the world's largest exporter of potash and pearl-ash. It is estimated that at one time some 2,000,000 tons of hardwood were burned

*A process in the manufacture of nitroglycerine is the addition of glycerine to acid under carefully controlled temperature and mixing conditions. Explosives are of tremendous importance in the development of industry. They are essential in the building of power projects, highways and railways, in the production of most industrial minerals and in geophysical prospecting for oil.*



and leached each year in the "asheries" of Canada to supply this trade. Much of Canada's potash went to Britain and was used partly in the making of potassium nitrate which comprised 75 p.c. of the gunpowder requirements.

In those days, while black powder was useful for military purposes and for coal mining, it could not shatter the hard rocks of the Precambrian Shield and the Rockies when the transcontinental railroad was started in 1874. The Canadian Pacific Railway could traverse only the easier sections of country until nitroglycerine dynamite was discovered and found to facilitate hard-rock tunnelling in 1876, and by 1878 the Rocky Mountain and Lake Superior sections could be built. Confederation may therefore be said to have been sealed and assured by the use of this chemical invention—dynamite.

Railroad building led to the development of the great ore bodies at Sudbury and Cobalt in Ontario and in southern British Columbia, and from these sprang new metallurgical industries in which chemistry played a large part. Chemical flotation and refining processes were developed. The sulphurous fumes from smelters at Sudbury and Trail were converted to sulphuric acid which, in turn, was used to produce fertilizers to feed the soil and more dynamite to blast out further ore supplies. Thus chemical processes provided not only the means of opening up the country, but a link between the barren rocks and the fertile ground.

**Discoveries in Electrochemicals Manufacture.**—At the turn of the 20th century, while the chemical industry was still very small in Canada, there was active development in one of its phases in which this country has since become outstanding—the use of electric power to effect chemical changes. New techniques applicable to Canadian water power were then being invented, developed and applied. In 1897, at Buckingham, Que., water power was harnessed to make phosphorus from the local phosphate rock. In another electrochemical field, two Canadian-born scientists developed, in the United States, processes for the manufacture of chemicals from salt by the use of the electric current—these are still in wide use to-day. A native



of Woodstock, Ont., discovered calcium carbide and the carbide industry of Shawinigan Falls, Que., was founded in 1902. Cheap and adequate power also attracted the world's largest calcium cyanamide plant to Niagara Falls, Ont., in 1909. As a further sign that the gap between the time of inventions and their application in Canada was closing, caustic soda was made at Windsor, Ont., in 1911—several years before the same process was adopted in Great Britain, formerly the home of the alkali industry.

**World War I Impetus.**—During World War I a six-fold increase took place in the volume of Canadian chemical production. The manufacture of sulphuric acid and explosives was stepped up rapidly and entirely new industries were initiated. The year 1916 saw the birth in this country of synthetic organic chemical manufacture—that phase of the applied science which deals with the vast and intricate family of carbon compounds to which plastics, synthetic rubber and fibres, medicines and dyestuffs belong. Canada then had the Empire's only calcium carbide plant at Shawinigan Falls. Canadian workers at this point devised new processes and built and operated North America's first acetylene chemicals factory, making acetone and acetic anhydride for essential war uses. The first magnesium metal produced in North America was made at Shawinigan Falls during the same period.

Pigments for paint and ink and also a number of drugs were first produced during World War I when supplies from Germany were cut off. At this time the world's largest silicon carbide abrasives plant was built at Shawinigan Falls, and ferro alloys were produced at Welland, Ont., from what was then the Empire's only plant of this kind. Magnesite deposits in the Ottawa Valley were adapted to the manufacture of furnace refractories, for which Canada was formerly dependent on foreign sources. The shortage of cotton linters led pulp producers in Canada to work out new methods of using spruce pulp as the basis of viscose rayon manufacture. A new cobalt alloy, valuable in high-speed tools, was developed at Deloro, Ont., and, at Trail, B.C., zinc was produced by a new electrolytic process.

**Progress between the Two World Wars.**—In the period between the Wars, the chemicals and fertilizer industry based on smelter fumes was outstanding in respect to original work and scale of operation. In 1925 the manufacture of contact sulphuric acid from nickel smelter fumes was first developed at Coniston, Ont., and then transferred to Copper Cliff in 1930. Following the successful application of a chemical flotation process for the separation of zinc-lead and iron sulphides in the Sullivan mine ore of British Columbia, there arose the problem of disposing of the large volume of sulphurous gases resulting from the expanded smelting operations at Trail. This was achieved in 1930 by converting the sulphuric dioxide in the gas to sulphuric acid, followed by further chemical processing to ammonium sulphate and ammonium phosphate.

Progress and diversification in other chemical fields were steady. Rayon manufacture of both the cellulose acetate and viscose types was initiated and transparent cellulose film was also produced for the first time. The vinyl resins, basis of many of to-day's plastic film and coated fabric articles, were developed at Shawinigan Falls. Many other chemical products were produced for the first time during this period including pharmaceutical and medicinal chemicals, such as the sulpha drugs; synthetic solvents for non-flammable dry

cleaning and metal cleaning; hydrogen peroxide for textile bleaching and other uses; sodium phosphates, ammonium chloride, sodium sulphate, sodium silicates, and other heavy chemicals.

**Achievements during World War II.**—When the wartime activities in the chemical industry came to be examined in retrospect, it was recognized that the substantial achievements were made possible by the sound integration and expansion of heavy chemicals and explosives manufacture that had occurred between the two conflicts. The total wartime capital expenditure on 32 chemicals and explosives plants (not including ammunition filling) exceeded \$100,000,000. This may be compared with a pre-war investment of \$172,000,000 in all chemicals and allied products plants, of which \$62,000,000 was in the heavy chemicals and miscellaneous groups.

Among the Canadian technical achievements of this period may be cited the discovery of new and improved methods of making the explosives R.D.X., and T.N.T., sodium azide, and carbamite, and the adaptation of wood cellulose to propellant production in place of cotton. In the field of construction achievement may be mentioned the erection at Welland of the Allies' only plant for the production of picrite for flashless cordite, and the building of ammonium nitrate plants at Trail, Calgary and Welland which, together with existing synthetic nitrogen capacity, brought Canada's total production capacity by 1941 almost up to that of the pre-war United States output. Since the War, explosives capacity has been maintained in standby condition, but it has been possible to apply much of the wartime chemicals capacity to post-war industrial development. Sulphuric acid capacity now serves rayon and fertilizer producers; ammonia is used for refrigeration and for ammonium-nitrate fertilizer manufacture; the intermediate product for picrite is also a raw material for plastics; phthalic anhydride, formerly used as a plasticizer for smokeless powder, is an ingredient of paint-resins and vinyl resin plasticizers; and so on.

**The Big Molecule.**—The vinyl resins, now in common use in transparent raincoats, shower curtains, coated upholstery fabrics and so on, are classed as high polymers. These are the products of a modern chemical technique

*An important use of chemicals is in mineral separation. Using different chemicals, flotation cells separate valuable metal bearing particles from waste.*



whereby certain small molecules may be linked into larger complexes of the same general type as are found in natural rubber, fibres and resins. By chemical modification of the reacting chemicals, new physical properties may be imparted such as toughness, elasticity, strength and endurance.

There was a time not very long ago when the terms "chemical" or "synthetic" were taken to denote inferior substitutes for the natural product. Through tradition it had come to be accepted that rubber made from tree-sap, silk spun from cocoons, and leather produced by tanning skins of animals were not replaceable by man-made substitutes. To-day, however, it is recognized that synthetics can be even more durable and versatile than nature's products which were not, after all, designed for the uses to which they have been put by man. The term "designed for use" can, on the other hand, be aptly applied to the manipulation of molecules by which research chemists are able to synthesize these products to fit particular service requirements.

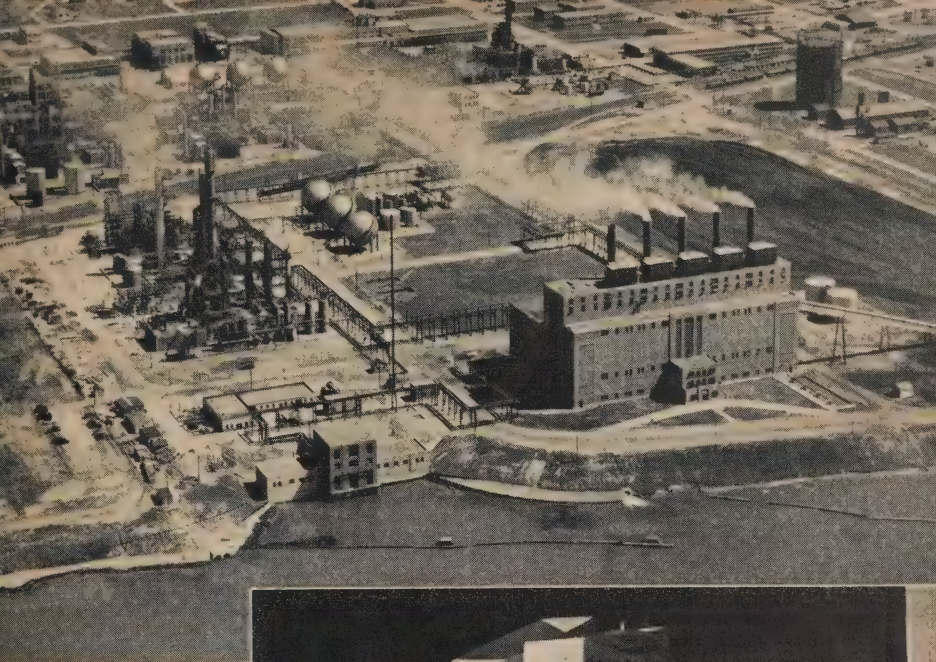
The discovery of these new polymers has been the main feature of chemical technology in the past twenty years. Three of the chief items, synthetic resins, synthetic rubber and nylon, are now manufactured in Canada. While some vinyl resin was produced at Shawinigan before the War, the year 1942 marked a major expansion in its production. In the same year nylon yarn was first spun at Kingston and in 1943 synthetic rubber was produced at Sarnia. The Government-owned plant at Sarnia, had the distinction of being the only one of 20 such factories built in North America that produced both of the major types of synthetic rubber. The ingredients of these synthetic rubbers were also made at Sarnia. Since the War, these plants at Sarnia have expanded their production for civilian purposes and now make synthetic rubbers, polystyrene plastic, ethylene glycol for antifreeze, solvents, and refrigerants. They also produce chemicals for soap manufacture, pulp bleaching, water sterilization and for many other purposes, using as raw materials the petroleum gases and salt of the Sarnia district and benzene from the steel mill coking plants of Hamilton and Sault Ste. Marie.

Just as the synthetic rubber plant has made Canada independent of natural rubber, so the product of the nylon plant at Kingston has displaced over 90 p.c. of the silk formerly imported. At first the chemical ingredients for its manufacture were imported from the United States but the completion of a large chemical plant now under construction between Brockville and Prescott will end this dependence.

Another active phase of chemical development in Canada, which originated during the War and has expanded actively since, is the manufacture of antibiotics. Before the War the origination and production of new medicinal extracts such as insulin and new forms of hormones, and research on vitamin standardization, had established a high reputation abroad for Canadian biochemical producers. This reputation has been maintained by the speed with which wartime and post-war manufacture of penicillin, streptomycin and, recently, cortisone was taken up. The use of radioactive isotopes (prepared at the Chalk River plant of the National Research Council) as tracers is now being studied by Canadian medicinal chemicals producers.

**Post-war Petrochemicals.**—It has been said that the chemical industry is dynamic, seeking out new techniques, new products and new raw materials. So the field of organic chemistry has grown and the manufacture of polymers





*The Polymer Corporation plant at Sarnia, Ont., turns out about 10,000,000 lb. of synthetic rubber each month. It is also the source of basic chemicals for industries manufacturing plastic products.*



in quantity sufficient to displace natural materials has placed a strain on sources of reactive carbon compounds for use as the primary units in this chemical molecule-building program. During World War II, refinery gases were used for synthetic rubber manufacture at Sarnia, Ont., and natural gas was employed for ammonia synthesis at Calgary, Alta. New methods of making chemicals from gases were invented or applied under the pressure of wartime necessity and afterwards remained to serve peacetime needs. As a result, chemicals from petroleum were under active development when, in 1947, large new petroleum oil and gas reserves were discovered in Alberta. Though distance from markets places limitations on the production of some of these

products in Alberta, one very large project to make chemicals to be used in the manufacture of cellulose acetate rayon is now under construction there. Liquids from petroleum refining and natural gas will be converted to chemical reagents which, in conjunction with sulphite wood-pulp from British Columbia, will make acetate rayon, the ultimate use of which will be fine woven and knitted fabrics. The ethane contained in the natural gas found at Leduc, is to be converted to polythene plastic at Edmonton, Alta.

Other petrochemical projects in Montreal East will use hydrocarbon gases from oil refineries to make solvents, antifreeze and intermediates for plastics. The estimated capital investment in all the new chemical projects approved during 1951 is as great as the total investment in the pre-war chemicals and allied chemicals group of industries in Canada (\$172,000,000). This does not take into account the continued expansion of the process industries: titanium ore from Lac Allard, Que., is being smelted by an electrochemical process at Sorel; a new aluminum smelter is projected for British Columbia; a new chemical refinery to process the recently discovered Lynn Lake nickel ore is to be built in Alberta. Sulphur and sulphur dioxide will be recovered from Noranda Mine tailings; liquid sulphur dioxide will be made at Copper Cliff from smelter gases; sulphur will also be recovered from the sour gas fields of Alberta. (All these recent steps towards the utilization of domestic sulphur resources have been prompted by the current shortage in supplies from abroad of this chemical, vital to the Canadian pulp and paper and other industries.)

There have recently been announcements of the establishment of new plants for the manufacture of sulphuric acid, caustic soda-chlorine, ammonia, phosphorus, formaldehyde, pentaerythritol, phenol, acetone, tartaric acid, citric acid, and synthetic resin adhesives and also for the production of many additions to the present range of products in the heavy chemicals, synthetic pesticides, rubber chemicals, synthetic detergents and textile processing agents fields. It is thus clear that the Canadian chemical industry is enjoying a period of very active expansion. The brief review given here may serve to show that this is not an entirely new phase, but rather the acceleration of a long-term trend towards a balanced Canadian industrial economy.

By a balanced economy is meant less dependence on export of primary raw materials and agricultural products and more processing of these resources in Canada. As this occurs in a wide variety of plants, one result is the increased flexibility given to the national economy and another is the opportunities provided for employment of skilled workers. The chemical and chemical engineering graduates of Canadian universities are, in increasing numbers, finding employment in this country. In 1920, the number of registered professional chemists and chemical engineers in Canada was scarcely more than 200. To-day the Chemical Institute of Canada has nearly 3,000 professional members and the total number of chemists and chemical engineers in Canada is twice that number. They are to be found in such Federal Government organizations as the National Research Council, the Board of Grain Commissioners, the Departments of Agriculture, Fisheries, National Health and Welfare, the Mines Branch and the Dominion Observatories Branch of the Department of Mines and Technical Surveys, the Forestry Branch of the Department of Resources and Development, the Patent and Copyright Office of the Department of the Secretary of State and, recently in increasing numbers, in national defence activities. They are to be found also in many provincial





*The manufacture of calcium carbide and acetylene chemicals is probably the most typical of Canada's chemical industries. Hydro-electric power and original Canadian research combined to produce the organic chemicals industry of Shawinigan Falls, Que.*

government counterparts of these departments, in universities, in schools and in industry. It is evident that the post-war surge of university graduates in chemistry has been completely absorbed and the demand is still great.

One of the functions of trained chemists is to re-examine constantly the economic possibilities for new plants in Canada in the light of changing conditions of markets and raw materials. The fact that the growth of the chemical industry has been achieved without high duty protection is an indication that the industries which are now operating are soundly based. Where there are gaps in the Canadian chemical structure, good economic reasons usually exist. Until the population and the secondary industries have reached a certain optimum size, profitable manufacture cannot be achieved in many chemical lines. In other cases, the disparity in size between the plants sufficient to supply Canadian needs and those operating abroad is so great that the cost of manufacture in Canada is prohibitive.

Looking to the future, it may be expected that the role of the chemical industry will continue to expand. As geographically remote areas and marginal resources become more important in the world economy, new chemical methods will be applied to the beneficiation of low-grade ores and the use of electric energy in refining them; the fertility of the soil and the destruction of plant pests, together with the "chemurgic" use of agricultural by-products, will become increasingly necessary and especially significant in Canada; chemical problems will arise as the oceans and the Arctic areas are tapped for raw materials, and new forms of energy, such as nuclear fission, are harnessed. In this sense, Sir Wilfrid Laurier's famous dictum that the 20th century belongs to Canada may well come true, because this is in fact the Chemical Age.





# Canada's Defence Program

CANADA had scarcely completed the process of demobilization after World War II when it became apparent that the peace was not secure enough to permit a return to the military position of the 1930's. Thus, like other free nations, Canada was forced to begin a reorganization of military strength geared to the accelerating threat of aggression. The successive subjection of the countries of eastern Europe, communist guerilla action in the smaller states of southeast Asia, and the success of communist forces in China, were all preludes to that most blatant aggressive action—the invasion of the United Nations-sponsored Republic of South Korea by the North Korean army. The United Nations action to repulse that invasion and the growing apprehension as to communist intentions in general necessitated a great increase in Canada's military expenditures on manpower, equipment and training. At the same time, while Western Europe was considered the focal centre of general defence, it was necessary in contemplating the build-up of the strength of the North Atlantic Treaty Organization to consider the needs for defence activities in other places and the forces required to meet those needs.

The objectives of Canada's defence program are to defend Canada against direct attack, to fulfil her obligations to the United Nations and the North Atlantic Treaty Organization, and to provide an organization capable of expansion in the event of total mobilization. These objectives are directed towards a common end and are basically as indivisible as the peace they aim to preserve.

**Appropriations.**—Defence appropriations for the year ended Mar. 31, 1951, had been fixed by Parliament at \$425,000,000 before communist aggressive action started in Korea in the summer of 1950. As a result of that action, a special session of Parliament was called in the autumn at which a supplementary appropriation of \$163,775,366 was voted to meet immediate defence needs. Authorization was given to send Canadian forces to Korea and general expansion of Canada's defence program was considered. In addition, authorization was given under the Mutual Aid Act to expend or apply an additional \$300,000,000 to provide equipment or services for other North Atlantic Treaty nations. On Feb. 5, 1951, the Minister of National Defence announced an enlarged defence program covering the years ending Mar. 31, 1952-54. For the year ended Mar. 31, 1952, the amount available for expenditure on defence (including directly related expenditures by departments other than National Defence) was placed at \$1,944,000,000, made up as follows:—

|                                                                                                           |                 |
|-----------------------------------------------------------------------------------------------------------|-----------------|
| Defence appropriation.....                                                                                | \$1,434,000,000 |
| Supplementary defence appropriation.....                                                                  | 14,000,000      |
| Defence production appropriation.....                                                                     | 64,000,000      |
| Supplementary defence production appropriation.....                                                       | 51,000,000      |
| Cash available from unexpended 1950 appropriation for Mutual Aid.....                                     | 175,000,000     |
| Further appropriation for Mutual Aid (including \$105,000,000 re-voted).....                              | 166,000,000     |
| Parliamentary appropriation for other government departments for defence according to NATO standards..... | 40,000,000      |





*Canadian artillery in Korea supports patrols of two companies of a Canadian infantry battalion.*

The Government was also given commitment authority in the amount of \$1,936,820,000 for contracts for construction and equipment to be met out of future appropriations.

**Canada and Korea.**—All three armed services have taken part in the United Nations action in Korea. The Navy has had five destroyers on duty—three at a time—in Korean waters since July 1950. Up to the end of September 1951, these five ships had sailed a total of over 280,000 miles in Korean waters, carrying out a variety of duties which included escorting troops from Japan to Korea, bombarding North Korean shore installations, destroying mines laid by the communist forces, giving aid to small communities in need of food and supplies, and helping in the evacuation of United Nations ground forces and civilians from battle areas.

Beginning July 29, 1950, the 426 (Transport) Squadron of the R.C.A.F. provided valuable assistance in the airlift to the Far East. Loads consisting of general cargo, Canadian and United States military personnel, and mail were carried in both directions. On eastbound flights casualties were evacuated to North America. Up to Dec. 15, 1951, Canadian aircraft had transported over 2,500,000 lb. of freight and approximately 8,500 passengers; they had flown nearly 21,000 hours and made over 300 return trips from North America to Japan, totalling 4,000,000 miles, without accident.

Canada's decision to raise an Army Brigade Group for service with United Nations forces was announced on Aug. 7, 1950, by the Minister of National



Defence. By mid-September, 8,700 new personnel had been posted to the Special Force and 1,300 officers and men were being posted from the Active Force to the Brigade to fill key positions. The Brigade was trained by Active Force instructors in Canada and later at Fort Lewis, Washington.

The Princess Patricia Regiment, part of the 25th Brigade, left for Korea on Nov. 25 to complete their training and went into action on Feb. 19, 1951. Since that time they have not only upheld but added to the laurels of their Regiment. For their courageous part in the fighting near Kapyong on Apr. 24 and 25, 1951, they received a citation for extraordinary heroism from the President of the United States. During the winter the remaining units of the 25th Brigade completed their training at Fort Lewis and left Seattle for the Far East in April 1951.

On May 1 the 25th Canadian Infantry Brigade Group was incorporated into the "First (Commonwealth) Division United Nations Forces", and towards the end of May the assembled Canadian Brigade went into action for the first time as a unit, alongside United Kingdom, Australian, New Zealand and Indian forces in Korea. The formation of the Commonwealth Division, of which Canadian troops form one-third of the combatant strength, greatly simplified problems of administration and command within the U.N. forces.

**Canada and NATO.**—The member nations of the North Atlantic Treaty Organization are pledged to increase their military and economic strength, by self-help and mutual aid, so as to deter aggression or, if it should occur, to defeat it. Under the heading of mutual aid Canada has already made important contributions. Since December 1950, the armament and ammunition for three infantry divisions have been transferred to the Netherlands, Belgium and Italy. Canada has also provided the required number of 25-pounder guns for an artillery regiment being raised in Luxembourg. Arrangements have been made to secure from the United States a number of 90-mm. anti-aircraft guns which will permit the transfer of more than four hundred 3·7-inch heavy anti-aircraft guns to European countries.

In addition to contributions of equipment, Canada has undertaken to train large numbers of aircrew for NATO countries. Cadets from Belgium,

A Royal Canadian Air Force instructor discusses landmarks before a flight with two Norwegian students in training in Canada under the North Atlantic Treaty Organization training program.





*Cadets at a C.O.T.C. school of infantry dismount from a carrier during battle manoeuvres.*

France, Italy, Norway and the Netherlands have already received their wings as navigators and pilots from Canadian schools, and cadets from the United Kingdom and other countries are in training. It is intended that ultimately the number of aircrew to be trained by the R.C.A.F. for NATO nations will reach 1,400 each year. This, along with training of R.C.A.F. aircrew, has necessitated a great expansion of training facilities and is reminiscent of the beginnings of the Commonwealth Air Training Plan during World War II under which Canada trained approximately 130,000 aircrew for countries of the Commonwealth. In addition, officers from Belgium, France, Italy, the Netherlands, Portugal, the United Kingdom and the United States are attending staff college and other courses in this country.

In making equipment and training facilities available to fellow-members of NATO, Canada has demonstrated in a tangible way her solidarity with them, but it is considered no less important that Canada should contribute units of her own forces for the collective defence of Western Europe. In event of war, the role of the Navy, in addition to the defence of Canadian harbours and coastal waters, would be to participate with the United Kingdom and the United States in anti-submarine and escort work in the Atlantic. Present plans are that the R.C.N. will provide a fleet of about 100 ships, including those of the latest type under construction as well as the ships now in commission or being refitted and re-commissioned.

The R.C.A.F. will have three jet-fighter squadrons overseas in 1952, and this number will grow to an air division of eleven squadrons in the Integrated Force by 1954. Air Force participation in NATO will require a very large portion of the total defence budget.

The 27th Canadian Infantry Brigade Group was formed to provide one-third of an infantry division for the Integrated Force. In October 1951, Parliament approved the movement of this Brigade Group overseas and, by December, it had joined the Integrated Force in Germany, where it was grouped with United Kingdom forces.



**Armed Forces in Canada.**—The main condition enabling Canada to carry out obligations to the United Nations and NATO has been the existence of a sound program of training, administration and supply which serves as the basis for expansion of the armed forces when and where necessary. Thus units which are in Canada serve two functions. They constitute the force necessary to protect Canada from attack and at the same time they are available to train whatever additional forces may be required for duty abroad or for general mobilization in an emergency.

The Navy and the maritime squadrons of the R.C.A.F. are charged with the protection of coastal waters and the more important harbours. R.C.A.F. fighter strength is being built up in conjunction with radar and communications networks for the defence of Canada against air attack. The air-defence system is integrated with that of the United States, as defence of the two countries can be considered only on a continental basis.

For security against possible raids by land forces, the Army has trained a mobile striking force from which small groups are being selected for battle experience in Korea. It is the policy of the Government to keep the striking force as a unit in Canada. Those sent to Korea are replaced either by new entries or by battle-experienced troops from the 25th Brigade who volunteer, after a period of service in Korea, for paratroop training in Canada. Thus the Army's force for home defence is kept at the requisite strength and at the same time will consist more and more of men with actual experience in battle and

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*H.M.C.S. "Magnificent" and H.M.C.S. "Micmac" leaving the coast of Nova Scotia on a training cruise to the Mediterranean.*





with special training in fighting under conditions peculiar to Canadian climate and territory.

The peacetime task of reserve units, whether of the Navy, the Army or the Air Force, is to provide a reservoir of officers and men who perform their normal work as civilians and, at the same time, acquire quite extensive military training at summer camps and evening musters. Reserve fighter squadrons and other reserve units of the Air Force, such as those trained in the techniques of radar, are important elements in plans for home defence. Each reserve naval division is allotted a specialized field of instruction so that equipment may be economically distributed and training may be intensive rather than generalized.

Assembly line for the F-86E Sabre jet fighter in production for the Royal Canadian Air Force.



**The Industrial Effort.**—A defence program must be supported by industrial strength. During a period of increasing military preparedness, armed forces make a heavy call on the economy, both because of the large amounts of equipment they require and because this equipment must be kept up to date. New and better types of aircraft, for instance, are continually developed and put into production, and types in service become obsolete before they are worn out. Large quantities of supplies are also needed by the armed forces in their normal training activities.

When modern forces go into action, they must be supported not only by large reserves of expendable supplies, such as ammunition, gasoline and replacements for weapons and equipment, but also by factories capable of maintaining these reserves at a high level. Even if the existence of adequate defence forces ensures that they will not have to be used in combat, the reserves of industrial strength must be maintained. Canada is fortunate in having modern, efficient and growing industries backed by great natural resources sufficient to provide the major requirements of arms and equipment.

The responsibility of ensuring that industry meets the requirements of the armed forces is now in the hands of the Department of Defence Production, in operation since Apr. 1, 1951. The following table shows the value of supplies ordered by the Canadian Government from Apr. 1, 1949, to Sept. 30, 1951, and the countries in which these orders were placed.

**Defence Orders Placed by the Canadian Government, Years ended  
Mar. 31, 1950 and 1951, and Apr. 1 to Nov. 30, 1951**

(Millions of Dollars—individual figures are rounded to the nearest million so that they do not necessarily add exactly to the totals given.)

| Item                                                                                                                            | Year Ended<br>Mar. 31— |            | Eight<br>Months<br>Ended<br>Nov. 30, 1951 |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------|------------|-------------------------------------------|
|                                                                                                                                 | 1950                   | 1951       |                                           |
| Program Group—                                                                                                                  |                        |            |                                           |
| Aircraft.....                                                                                                                   | 71                     | 300        | 466                                       |
| Shipbuilding.....                                                                                                               | 4                      | 77         | 104                                       |
| Tank-automotive.....                                                                                                            | 12                     | 65         | 87                                        |
| Weapons.....                                                                                                                    | 1                      | 19         | 114                                       |
| Ammunition and explosives.....                                                                                                  | 2                      | 20         | 123                                       |
| Electronics and communication equipment.....                                                                                    | 17                     | 84         | 114                                       |
| Construction and building maintenance.....                                                                                      | 29                     | 68         | 136                                       |
| Other programs including fuels and lubricants, clothing<br>and equipage, medical and dental equipment and<br>supplies, etc..... | 89                     | 128        | 256                                       |
| <b>Totals.....</b>                                                                                                              | <b>225</b>             | <b>759</b> | <b>1,401</b>                              |
| Country Where Placed—                                                                                                           |                        |            |                                           |
| Canada.....                                                                                                                     | 204                    | 623        | 976                                       |
| United States.....                                                                                                              | 15                     | 128        | 384                                       |
| United Kingdom.....                                                                                                             | 5                      | 8          | 41                                        |

The predominance of the aircraft program is apparent, accounting for about a third of the orders placed. As defence measures develop, the balance of expenditures will alter, but the aircraft program is likely to remain the largest because of the importance of air power to Canada. Large orders have been placed in the United States during the build-up period. When the decision was made to standardize on certain United States types of weapons rather than on British types, there were no facilities for producing many of them in Canada. Existing plants had to be tooled-up to meet the new

specifications and more plants had to be built. Initial purchases were made in the United States of equipment, including guns and vehicles, to be produced subsequently in Canada.

When Canadian production is in full swing, some kinds of aircraft and other military items will still be imported, since this country's requirements are not large enough to justify laying down a plant for every type of weapon. However the situation is not one-sided. The United States Government is buying training and general-purpose aircraft from Canadian firms, which thus benefit from the large-scale production made possible by the continental market. Guns, too, are being purchased in Canada. More of the 3-inch 50-calibre naval guns are being bought by the United States Government than by the Canadian Government. The United States Government has also placed orders for Canadian mobile radar equipment. The general principle being followed is that defence equipment and stores that are required on a scale large enough to justify setting up special facilities should be produced in Canada, and that Canada should import other items. The defence orders placed in Canada have naturally had their effects on the pattern of Canadian industry, the most outstanding being that on the aircraft industry. Production lines have been set up for the assembly of new aircraft and for turning out components not previously manufactured in Canada, such as turbine blades and fuel systems for jet engines. A new all-weather jet fighter, the CF-100, has been designed and built in Canada. The Orenda engines to power it have also been designed and produced in this country. Although the first of these aircraft was handed over to the R.C.A.F. in September 1951, full-scale production is not expected before 1953.

A second jet fighter being produced in Canada is the F-86E Sabre. Production of this aircraft, which is powered by an engine produced in the United States, was well under way in 1951.

Harvard primary trainers began to come off the production line late in 1951, and engines now imported from the United States will be produced in a new plant near Montreal by mid-1952. Canada will meet some of the United States requirements for this aircraft. The Beaver general-purpose aircraft is also being manufactured to meet large United States orders as well as Canadian requirements. Tooling-up is going on for the manufacture of the T-33 Shooting Star jet trainer for the R.C.A.F., and production is scheduled for 1952.

Electronic devices are now very important in defence. Their main uses are in the fields of communication by radio and the interception of aircraft and ships by radar. Many of Canada's electronic requirements are being met from the United States, but the Canadian industry is switching capacity from civil to military production. Anti-aircraft fire-control radars are already being produced as well as a new Canadian-designed pack radio set for the infantry. Canadian plants will also produce most of the equipment for the Canadian element of the North American radar screen, and will provide the equipment necessary to complete the communications network which is vital to the defence of this country. As the electronics program stands at present, about one-fifth of the expenditure will be on equipment for jet fighters.

Shipyards are being kept busy by orders for 14 escort vessels, 14 mine-sweepers, 5 gate vessels and an icebreaker, as well as a number of harbour craft. The construction of these vessels calls for work outside the shipyards also, in the manufacture of boilers, turbines, auxiliary engines, deck gear and





*The Royal Canadian Air Force formally accepted the first CF-100 jet fighter at Malton airport, Toronto, Sept. 17, 1951. The Rt. Hon. C. D. Howe, Minister of Trade and Commerce and Minister of Defence Production, handed over the aircraft's log books to the Chief of Air Staff. The CF-100 is Canadian designed and built.*

other components. Most of the contracts for such items have been placed in this country. In addition to the new ships, a "mothball fleet" of 34 mine-sweepers and frigates is being converted and refitted.

Production is under way on 50-calibre ammunition and on 3.5-inch and 2.25-inch rockets. Deliveries of the 3-inch 50-calibre gun to the Canadian and United States Navies will begin in the spring of 1952. Preparations are being made for the production of anti-submarine mortars for the Navy and of nearly all the large and medium calibre guns, mortars and ammunition required by the armed forces. Delivery of most of these items will begin during 1952.

Explosives for ammunition are already being produced in two plants, one of which manufactures picrite, the other a number of explosives including

R.D.X., T.N.T. and rifle powder. Phosphorus and hexachlorethane are also being made in Canada to government specifications, the latter mainly for export to the United States. Facilities for forging and machining shells and for producing other components of the complete round of ammunition are being set up. The explosives program is being timed to coincide with their coming into production.

Automobile manufacturers are producing  $\frac{1}{4}$ -ton,  $\frac{3}{4}$ -ton and  $2\frac{1}{2}$ -ton military trucks to joint Canadian-United States specifications. Because of the large capacity of these plants, the output of trucks can be expanded quickly to meet any foreseeable demands from the armed services.

**The Development of Strategic Resources.**—The industrial effort will result in heavy demands for raw materials. The following table shows that a higher proportion of the output of the principal non-ferrous metals mined in Canada remained in the country during the first ten months of 1951 than during 1950. Since the defence programs of other North Atlantic powers also call for more of these raw materials, Canadian output must be stepped up. Copper, lead, nickel and zinc are mined in Canada and aluminum is produced from imported ores.

***Production, Exports and Imports of Principal Non-Ferrous Metals,  
1950 and First Ten Months of 1951***

(Thousands of Short Tons—individual figures are rounded to the nearest thousand so that they do not necessarily work out exactly to the totals given.)

| Year and Item                | Copper,<br>Refined | Lead,<br>Refined | Nickel,<br>All forms | Zinc,<br>Refined |
|------------------------------|--------------------|------------------|----------------------|------------------|
| <b>1950</b>                  |                    |                  |                      |                  |
| Domestic production.....     | 238                | 170              | 123                  | 204              |
| Exports to—                  |                    |                  |                      |                  |
| United States.....           | 50                 | 105              | 89                   | 108              |
| United Kingdom.....          | 64                 | 8                | 22                   | 36               |
| Elsewhere.....               | 18                 | 2                | 12                   | 3                |
| Imports.....                 | —                  | 1                | 2                    | —                |
| Domestic supply.....         | 106                | 56               | 2                    | 57               |
| <b>1951, January-October</b> |                    |                  |                      |                  |
| Domestic production.....     | 206                | 135              | 114                  | 180              |
| Exports to—                  |                    |                  |                      |                  |
| United States.....           | 21                 | 47               | 70                   | 71               |
| United Kingdom.....          | 44                 | 28               | 27                   | 45               |
| Elsewhere.....               | 15                 | 6                | 11                   | 5                |
| Imports.....                 | 2                  | 1                | 1                    | 1                |
| Domestic supply.....         | 128                | 53               | 7                    | 60               |

Expansion of base-metal industries has been undertaken to meet defence needs. During World War II output was increased by making fuller use of existing capacity and by concentrating on high-grade ore. Now, however, the major producers are operating at capacity and can no longer concentrate on high-grade ore without drastically shortening the life of the mines. The probable rate of expansion of the production of certain minerals is shown in the following table. The expected increase in iron-ore production by 430 p.c. between 1950 and 1955, and that of petroleum capacity by 210 p.c., are the outstanding features. In view of the increasing importance of cobalt, the 95 p.c. expansion here may be of great significance.

# 

(Thousands of Short Tons)

| Mineral                                | Actual Output 1950 | Estimated Capacity 1950 | Estimated Capacity 1955 | P.C. Increase in Capacity 1950-55 |
|----------------------------------------|--------------------|-------------------------|-------------------------|-----------------------------------|
| Petroleum, crude <sup>1</sup> .....    | 80                 | 80 <sup>2</sup>         | 250 <sup>2</sup>        | 210                               |
| Aluminum, primary.....                 | 395                | 415                     | 603                     | 45                                |
| Iron ore.....                          | 3,617              | 3,617                   | 19,000                  | 430                               |
| Copper, all forms.....                 | 262                | 272 <sup>3</sup>        | 300                     | 10                                |
| Lead, all forms.....                   | 170                | 190 <sup>3</sup>        | 205                     | 8                                 |
| Zinc, all forms.....                   | 311                | 320 <sup>3</sup>        | 406                     | 27                                |
| Nickel, all forms.....                 | 123                | 137                     | 155                     | 13                                |
| Tungsten, WO <sub>3</sub> content..... | 0.001              | 0.001                   | 2                       | —                                 |
| Cobalt.....                            | 0.313              | 0.313                   | 0.6                     | 95                                |
| Magnesium.....                         | 1.8                | 5                       | 5                       | —                                 |
| Ilmenite.....                          | 100                | 100                     | 550                     | 450                               |
| Steel, primary ingot.....              | 3,300              | 3,700                   | 4,400                   | 21                                |
| Sulphur, elemental.....                | —                  | —                       | 81                      | ...                               |

<sup>1</sup> Thousands of bulk barrels per day.  
on a competitive basis.

<sup>2</sup> Ability to produce and deliver to refineries  
<sup>3</sup> Based on the highest quarterly rate of output during 1950.

New plants for turning out primary iron and steel are being constructed. The petroleum and natural gas resources are being developed steadily. The needs of modern defence forces for fuel oil, lubricating oils and petroleum require no emphasizing, nor do those of modern industry. The chemical industries are increasing their capacity to provide basic materials for a wide range of industries as well as explosives for ammunition and other military uses. New hydro-electric projects will provide power for expanded industry in general. Development of natural resources on this scale will further augment Canada's industrial strength and, through it, the capacity to maintain the armed forces necessary for safeguarding her freedom.

The following table shows the amount of investment in new buildings and machinery taking place in industries producing materials of strategic importance.

An engineer running a test on an Orenda jet engine. The technicians checking the motor while in operation wear ear defenders.







Wharf and refinery under construction at Sorel, Que. The annual output of the refinery, to be in full-scale operation in 1952, will amount to 200,000 tons of iron. The project

### Investment in New Buildings and Machinery in Industries Producing Strategically Important Materials, 1950-55

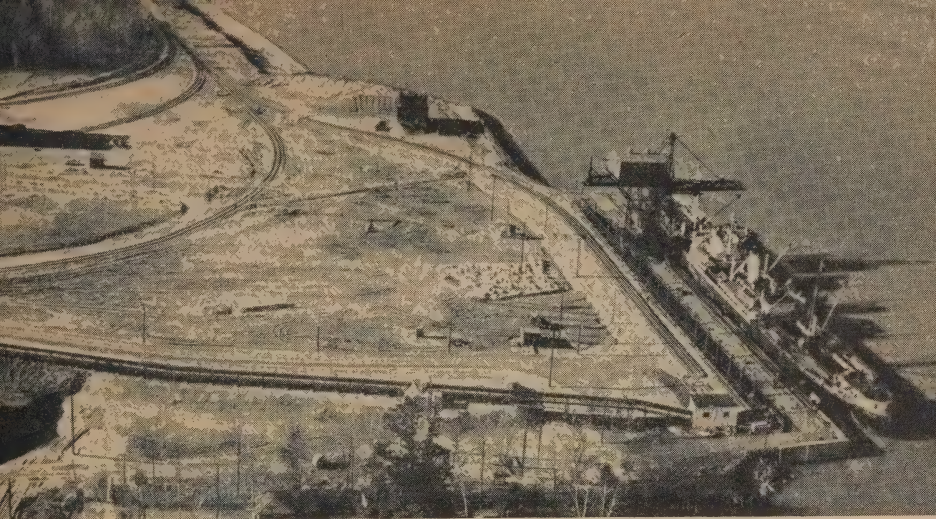
(Millions of Dollars)

| Industry                                                       | Actual Investment 1950 | Actual Investment 1951 <sup>a</sup> | Value of Expansion Projects being undertaken for Completion in or before 1955 |
|----------------------------------------------------------------|------------------------|-------------------------------------|-------------------------------------------------------------------------------|
| Aluminum smelting.....                                         | 3.4                    | 18.2                                | 233                                                                           |
| Other non-ferrous metal smelting, refining and processing..... | 19.2                   | 5.0                                 | 150                                                                           |
| Iron-ore mining.....                                           | 5.7                    | 23.8                                | 226                                                                           |
| Primary iron and steel.....                                    | 15.7                   | 66.9                                | 88                                                                            |
| Petroleum and Natural Gas—                                     |                        |                                     |                                                                               |
| Exploration and development <sup>1</sup> .....                 | 62.4                   | 70.9                                | 300                                                                           |
| Transmission and refining.....                                 | 21.5                   | 37.7                                | 213                                                                           |
| Chemical products <sup>2</sup> .....                           | 32.8                   | 64.3                                | 127                                                                           |
| <b>Totals.....</b>                                             | <b>160.7</b>           | <b>286.8</b>                        | <b>1,337</b>                                                                  |
| Hydro-electric power.....                                      | 344.5                  | 403.8                               | 1,200                                                                         |

<sup>1</sup> Excluding acquisition of land rights.

<sup>2</sup> Including petrochemical projects.

**The Defence Research Board.**—The Defence Research Board plays a major role in ensuring that full use is made of the resources of science in support of Canada's defence program. The Board was established by Parliament in 1947 as an integral part of the Department of National Defence. It has a membership of 13 and is headed by a full-time Chairman who is a member of the Chiefs of Staff Committee. Serving as members ex officio are the chiefs of staff of the three armed services, the Deputy Minister of National Defence and the President of the National Research Council. The other members are appointed for terms of three years and represent the scientific interests of Canadian universities and industry.



*includes shipping terminals and a 27-mile railway from Lac Tio in the Allard Lake district of northeastern Quebec.*

The activities of the Board are concentrated in a relatively small number of fields of research for which Canada possesses either unique facilities or special requirements. By thus concentrating their efforts, Canadian defence scientists can be sure of doing work of genuine value to the members of the North Atlantic Treaty Organization and acceptable to them as an exchange for the research information they make available to Canada.

Applying this same principle of economy of effort in assigning responsibility to research agencies, the Board whenever possible utilizes the services of civilian scientific organizations, including the universities, industry and such government laboratories as those of the National Research Council, the Bureau of Mines and the Fisheries Research Board. In certain fields of particular concern to defence, where the work cannot properly be assigned to civilian agencies, activities are carried out in specialized research and development establishments operated by the Board itself.

Security restrictions prevent the giving of details of a great part of the activity under the defence research and development program. However, as an indication of the work being done to meet the immediate needs of the armed forces, mention may be made of the adoption by the United Kingdom and the United States of a Canadian-designed sabot-type shell for the 17-pounder and 76-mm. anti-tank guns; the development of a bazooka-type anti-tank weapon with greatly improved accuracy; the initiation of an air-to-air guided missile development program for the R.C.A.F.; and a Canadian contribution to the technique of detecting submarines.

The long-range program devoted to projects that may not bear fruit for five or ten years, or even longer, is of greater potential importance. This program utilizes the universities as the principal source of fundamental scientific knowledge and trained research workers, and assigns to the establishments of the Defence Research Board the task of applying the ever-increasing knowledge of science to the development of new and more efficient weapons.







# Canada—The Country

## •Physical Features

CANADA is vast in extent. It covers almost half the North American continent and has a total area of 3,845,774 sq. miles—slightly larger than that of Europe and larger by 236,357 sq. miles than the area of the United States and Alaska. From the Atlantic to the Pacific, the Canada-United States boundary is 3,986.8 miles in length and from north to south Canada extends nearly 3,000 miles from the North Pole to the latitude of the Mediterranean.

Of the total land area of 3,606,551 sq. miles, only 547,946 sq. miles are now under cultivation or considered suitable for agricultural use, 1,345,840 sq. miles are forested land and the remaining 1,712,765 sq. miles are made up of open muskeg, rock, road allowances and urban land. A large part of this non-agricultural land is, of course, in the northern areas, 70 p.c. of it being in Yukon and the Northwest Territories alone, though there are other vast non-agricultural areas in northern Quebec, the mountainous regions of British Columbia and in northern Ontario. While such land is unproductive so far as surface resources are concerned, it is these areas that form Canada's great storehouse of mineral wealth.

The fresh-water area of the country is unusually large, constituting over 6 p.c. of the total. The Great Lakes, with the St. Lawrence River, form the most important system of waterways on the continent and one of the world's notable fresh-water transportation routes, providing ship transportation from the sea into the very heart of the continent. From the Strait of Belle Isle at the northern entrance to the Gulf of St. Lawrence, the sailing distance to the head of Lake Superior is 2,338 miles. The Great Lakes, through which the International Boundary passes, have a combined area of 95,170 sq. miles and, in addition to these, there are twelve large lakes over 1,000 sq. miles in area and countless smaller lakes scattered all over that portion of Canada lying within the Canadian Shield; in an area of 6,094 sq. miles, accurately mapped, immediately south and east of Lake Winnipeg, there are 3,000 lakes.

Canada's huge territory includes a great diversity of physical features. Politically the country is divided into ten provinces and two 'territories'. Canada's most easterly province, *Newfoundland*, embraces the Island of Newfoundland as well as Labrador which is on the mainland and 11 miles distant across the Strait of Belle Isle at its narrowest point. The Island, shaped like an equilateral triangle with each side about 320 miles in length, has an area of 42,734 sq. miles, while Labrador covers 112,630 sq. miles. The Island is generally barren and rocky and of low relief, with innumerable ponds and swamps, and there is little land suitable for farming. The river valleys and the west coast, where the elevations are higher, are thickly forested and support a thriving wood-pulp industry. The deeply indented coast line has many harbours providing safe anchorage for the fishing vessels which support the important fishing industry. The Province has extensive mineral deposits both on the Island of Newfoundland and in Labrador.

*Prince Edward Island* is Canada's smallest province, being about 120 miles in length with an average width of 20 miles and an area of 2,184 sq. miles. It is separated from the mainland provinces of New Brunswick and Nova Scotia by Northumberland Strait. A fertile soil and sheltered harbours offer great inducements to the pursuits of agriculture and fishing.

*Nova Scotia* is a 381-mile-long peninsular province, 50 to 105 miles in width, with an area of 21,068 sq. miles. It is connected with the Province of New Brunswick by the narrow Isthmus of Chignecto. The Island of Cape Breton forms the northeast portion. On the Atlantic side, the mainland is generally rocky and open to the sweep of Atlantic storms; it is deeply indented and has numerous harbours which shelter large fishing fleets. The slopes facing the Bay of Fundy and the Gulf of St. Lawrence are sheltered from the Atlantic by low mountainous ridges. They present fertile plains and river valleys especially adapted by climate and situation to the growing of apples and other fruits and to general farming. Nova Scotia is one of the leading provinces in the production of coal.

*New Brunswick* has an area of 27,985 sq. miles. The Bay of Chaleur at the north, the Gulf of St. Lawrence and Northumberland Strait at the east and the Bay of Fundy at the south provide the Province with an extensive coast line. The surface of New Brunswick is, in general, undulating and attains its highest elevation of 2,690 feet in the western section. While the extensive forest resources of the Province are of first importance economically, large areas of rich agricultural land are found in the numerous river valleys, especially that of the Saint John which runs through 400 miles of country famed for its distinctive beauty. Fishing is also of importance to the Province.

*Quebec* is the home of French-speaking Canadians. It is the largest province, occupying 594,860 sq. miles east of Hudson Bay. The Gulf of St. Lawrence and the River St. Lawrence penetrate across the entire width of the Province and divide the Eastern Townships and the Gaspé Peninsula to the south from the larger portion to the north, which is made up of Precambrian rocks of the Canadian Shield. In this area forestry and mining are the important industries. With the exception of the treeless zone, extending north of latitude 58°, most of the Province supports a valuable tree growth varying from mixed forests in the southwest to coniferous forests in the east and north, which forms the basis of a great pulp and paper industry. Quebec stands foremost among the provinces in the development of hydro-electric power and second in the production of minerals. The climate and soil of the upper St. Lawrence valley and of the Eastern Townships are well suited to general farming operations, including dairying and the production of fruits and vegetables.

*Ontario*, an area of 412,582 sq. miles lying between Manitoba on the west and Quebec on the east, is generally considered an inland province, but its southern boundary has a fresh-water shore line of 2,362 miles on the Great Lakes while its northern limits have a salt-water shore line of 680 miles on Hudson and James Bays. The northern portion of the Province includes a large part of the Canadian Shield and it is in this area that the rich deposits of mineral ore lying within its ancient rocks have been developed to the greatest extent. Vast forest resources in proximity to hydro-electric power form the basis of a large pulp and paper industry and also provide a rich fur preserve. The triangle of southern Ontario lying between the lower lakes and the



*Checkerboard of orchards and fields in the fertile Cornwallis Valley of Nova Scotia.*

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Ottawa River is part of the St. Lawrence Lowlands. Its moderate climate, fertile soil and excellent transportation facilities have combined to make this a region of major economic importance. Within this area is the greatest concentration of population and industry in the country.

*Manitoba*, to the west of Ontario, has an area of 246,512 sq. miles and is a land of wide diversity, combining 400 miles of sea-coast fronting on Hudson Bay, great areas of mixed forests, large lakes and rivers, a belt of treeless prairie extending to the southeastern corner of the Province and patches of open prairie overlain by very fertile soil of great depth. The surface of the Province as a whole is comparatively level, the average elevation being between 500 and 1,000 feet. Although regarded as basically agricultural and constituting part of the famous wheat-growing plain of Canada, Manitoba possesses in its more northerly sections rich deposits of base metals and extensive forest and water-power resources.

*Saskatchewan* lies in the centre of the prairie belt between Manitoba and Alberta and, like those provinces, extends from the International Boundary on the south to the 60th parallel of latitude on the north. It has an area of 251,700 sq. miles. The southerly two-thirds of the Province is generally fertile prairie with soil of great depth and a climate especially suited to the growing of grain. The Canadian Shield penetrates over the northern third, which is abundantly watered by lakes and rivers and gives promise of potential mineral wealth.





*Lethbridge, which owes its birth to the coal deposits in the dry, treeless prairie belt of southern Alberta, is to-day the trading centre of a rich agricultural and ranching region. Over 360,000 acres east of the city are now under irrigation.*

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*Alberta, covering 255,285 sq. miles, lies between Saskatchewan and the Rocky Mountains. The southern part of the Province is in the dry, treeless prairie belt, changing to the north into a zone of poplar interspersed with open prairie and farther north again to mixed forests. In the southwestern section rise the foothills of the Rocky Mountains with elevations of from 2,000 to 4,000 feet. Alberta has the most extensive coal resources of any of the provinces and has become the leading producer of petroleum and natural gas.*

*British Columbia is the third largest and the most westerly province of Canada, having an area of 366,255 sq. miles. The prominent features of the Province are the parallel ranges of mountains that cover all except the north-east corner. Many of the valleys are extremely fertile, with climatic conditions well suited to mixed farming and the growing of fruit. The shore line of the Pacific has deep indentations with many inlets ideal for harbourage and has wonderful scenic aspects. The wealth of forest resources supports great pulp and paper industries and places British Columbia first among the provinces in the production of lumber and timber. The Province is also first in value of fisheries production mainly because of its catches of the famous Pacific salmon. It also possesses rich mineral resources which are the basis of great smelting and chemical industries.*

*North of the western provinces, Canada extends over an area of 1,511,979 sq. miles of largely undeveloped domain comprising *Yukon* and the *Northwest Territories*. Great rivers, like the Mackenzie and Yukon, are found there as*

well as large inland bodies of water, such as Great Slave and Great Bear Lakes. There are many indications of mineral wealth. Mines of Great Bear Lake have long been North America's major source of radium and now produce radioactive ores for atomic energy projects.

## •The Climate

The climate of Canada is dominated by the general movement of the atmosphere from west and northwest. During the winter the cold airmasses moving eastward and southward from the polar regions are modified by the time they reach the central and eastern provinces. In winter air moving up from the Gulf of Mexico affects the climate of southeastern Canada, while in summer air from the same source furnishes rainfall to the prairies. Airmasses from the north Pacific Ocean lose much of their water content while passing over the mountains and, moving eastward, produce mild to hot weather according to season.

Vancouver Island and the coast of the mainland of British Columbia enjoy the mildest winters to be found anywhere in Canada, with summers long and moderately warm. Autumn and winter are the wet seasons in this area, while temperatures in the interior of the Province are more extreme than those along the coast.

The severity of the winters varies greatly in the Prairie Provinces from year to year. The 'chinook', that spectacular phenomenon of sudden change from bitter cold to comparative warmth, is one of the striking features of winter weather in the western prairies but is most pronounced in southern Alberta. In summer, daytime temperatures are high but the nights are cool. While rainfall is light, most of it occurs during the growing season. Only a limited portion of the southern prairies has an average frost-free period of 100 or more days.

Throughout northwestern Ontario the winters are cold and, though the summers are moderately warm, the danger of frost at night is always present. The southern Ontario region is traversed alternately by warm and cold airmasses, changing on the average about every three days with precipitation occurring at the margins of the airmasses. Precipitation is distributed fairly evenly throughout the year. Southwestern Quebec enjoys a similar climate except that the moderating influence of the Great Lakes is absent. Winters are colder, summers slightly warmer and the frost-free period shorter. Northward into Quebec the temperatures are lower in both summer and winter. Precipitation is ample throughout the whole region.

In New Brunswick, Nova Scotia and Prince Edward Island the summers are warm with maximum temperatures rising to 90° or 95° F. at times. Snowfall is heaviest in northern New Brunswick, while in Nova Scotia the heaviest precipitation occurs along the Atlantic Coast and is usually partly rain even in winter. The maximum incidence of fog is from June to August. The winters are cold in the interior of Newfoundland but are more moderate along the coast. Spring is late, summers are short and fog frequent. Winter temperatures are bitterly cold throughout all of northern Canada. Summers in Yukon and in the District of Mackenzie are much warmer than those experienced in the eastern Arctic. Precipitation is light throughout the far north.





Crossing Maligne  
Lake, Jasper Na-  
tional Park, Alta.

### Temperature and Precipitation Data for 35 Representative Localities in Canada

| Locality                      | Height<br>Above<br>Sea<br>ft. | Length<br>of<br>Record<br>yrs. | Temperatures<br>(Farhenheit) |      | Killing Frost<br>Average Dates |                    | Precipi-<br>tation<br>(inches) |
|-------------------------------|-------------------------------|--------------------------------|------------------------------|------|--------------------------------|--------------------|--------------------------------|
|                               |                               |                                | Jan.                         | July | Last in<br>Spring              | First in<br>Autumn | Annual<br>Total                |
| Gander, Nfld.....             | 482                           | 11                             | 19.2                         | 62.3 | May 29                         | Oct. 2             | 38.24                          |
| St. John's, Nfld...           | 296                           | 67                             | 23.5                         | 59.6 | June 2                         | Oct. 10            | 53.78                          |
| Charlottetown,<br>P.E.I.....  | 186                           | 65                             | 17.8                         | 65.6 | May 13                         | Oct. 22            | 39.47                          |
| Annapolis Royal,<br>N.S.....  | 30                            | 25                             | 24.4                         | 64.4 | May 20                         | Oct. 6             | 41.41                          |
| Halifax, N.S.....             | 83                            | 75                             | 23.6                         | 64.7 | May 11                         | Oct. 14            | 55.74                          |
| Sydney, N.S.....              | 48                            | 69                             | 22.1                         | 63.6 | May 29                         | Oct. 13            | 50.24                          |
| Chatham, N.B.....             | 98                            | 50                             | 12.2                         | 66.6 | May 19                         | Sept. 29           | 40.74                          |
| Fredericton, N.B...           | 164                           | 67                             | 13.5                         | 66.1 | May 20                         | Sept. 24           | 42.80                          |
| Saint John, N.B...            | 119                           | 56                             | 19.3                         | 61.0 | May 4                          | Oct. 16            | 42.26                          |
| Arvida, Que.....              | 335                           | 10                             | 3.6                          | 65.0 | May 19                         | Sept. 19           | 38.93                          |
| Fort McKenzie, Que.           | 250                           | 9                              | -12.5                        | 54.2 | July 8                         | July 26            | 22.04                          |
| Lennoxville, Que....          | 498                           | 24                             | 12.8                         | 66.2 | May 28                         | Sept. 9            | 39.56                          |
| Montreal, Que.....            | 187                           | 55                             | 13.8                         | 69.8 | Apr. 28                        | Oct. 17            | 40.80                          |
| Kapuskasing, Ont...           | 752                           | 19                             | -1.7                         | 62.4 | June 14                        | Sept. 1            | 27.59                          |
| Ottawa, Ont.....              | 260                           | 65                             | 11.9                         | 69.6 | May 7                          | Oct. 2             | 34.23                          |
| Port Arthur, Ont...           | 644                           | 62                             | 6.7                          | 63.0 | May 26                         | Sept. 20           | 23.66                          |
| St. Catharines, Ont..         | 347                           | 21                             | 26.0                         | 71.1 | May 7                          | Oct. 20            | 27.03                          |
| Toronto, Ont.....             | 379                           | 105                            | 22.6                         | 68.9 | May 2                          | Oct. 14            | 32.18                          |
| Churchill, Man.....           | 43                            | 30                             | -19.0                        | 53.7 | June 28                        | Aug. 26            | 15.96                          |
| The Pas, Man.....             | 890                           | 27                             | -8.7                         | 64.6 | May 30                         | Sept. 7            | 15.44                          |
| Winnipeg, Man.....            | 790                           | 66                             | -3.1                         | 66.9 | May 27                         | Sept. 14           | 21.19                          |
| Prince Albert, Sask...        | 1,414                         | 54                             | -4.3                         | 63.4 | May 30                         | Sept. 10           | 16.11                          |
| Regina, Sask.....             | 1,884                         | 55                             | -0.7                         | 64.8 | June 6                         | Sept. 10           | 14.70                          |
| Beaverlodge, Alta...          | 2,484                         | 31                             | 5.6                          | 59.8 | June 4                         | Sept. 4            | 17.19                          |
| Calgary, Alta.....            | 3,540                         | 55                             | 13.1                         | 61.5 | June 1                         | Sept. 6            | 16.65                          |
| Edmonton, Alta.....           | 2,219                         | 56                             | 5.9                          | 61.6 | May 30                         | Sept. 6            | 17.38                          |
| Medicine Hat, Alta..          | 2,365                         | 55                             | 12.0                         | 69.3 | May 12                         | Sept. 19           | 12.81                          |
| Cranbrook, B.C.....           | 3,014                         | 35                             | 16.7                         | 63.2 | June 10                        | Aug. 28            | 14.41                          |
| Nelson, B.C.....              | 2,235                         | 39                             | 24.4                         | 66.4 | May 13                         | Sept. 30           | 27.77                          |
| Penticton, B.C.....           | 1,121                         | 32                             | 26.8                         | 68.3 | May 7                          | Oct. 3             | 10.85                          |
| Prince George, B.C..          | 2,218                         | 27                             | 12.9                         | 59.6 | June 18                        | Aug. 22            | 19.98                          |
| Victoria, B.C.....            | 228                           | 54                             | 38.7                         | 60.0 | Mar. 18                        | Nov. 27            | 27.13                          |
| Dawson, Y.T.....              | 1,062                         | 41                             | -21.0                        | 59.6 | June 6                         | Aug. 19            | 12.61                          |
| Coppermine, N.W.T.            | 13                            | 13                             | -18.9                        | 50.1 | June 25                        | Aug. 22            | 10.72                          |
| Fort Good Hope,<br>N.W.T..... | 214                           | 31                             | -23.6                        | 59.3 | June 15                        | Aug. 6             | 10.63                          |



## • National and Provincial Parks

The Federal Government and most of the Provincial Governments have set aside extensive areas of scenic beauty for the use of the people in perpetuity.

### National Parks

The National Parks are maintained by the Federal Government for the preservation of regions of outstanding beauty and national interest, and provide remarkable opportunities for recreation, relaxation and nature study. Differing widely in character and purpose, they include scenic and recreational parks, wild animal parks set aside primarily for the protection and propagation of species once in danger of extinction, and national historic parks.

The Parks are developed and maintained in such a manner that they will not be despoiled or exhausted by use but will continue to provide inspiration, education and healthful recreation for present and future generations. By progressive stages they have been made more easily accessible and their facilities for recreation and accommodation vastly extended. Warden service protects the forests and wildlife and maintains constant vigilance for the safety and comfort of visitors.

That these areas rank high among Canada's major tourist attractions is evidenced by the fact that nearly 2,204,000 persons visited the Parks in 1951, approximately 20 p.c. of whom came from the United States and countries abroad. There are 28 separate units with a total area of about 29,000 sq. miles.

The Parks are administered by the National Parks Service of the Department of Resources and Development, which is also entrusted with the restoration and marking of places of national historic importance and the commemoration of services rendered by distinguished Canadians. About 400 such sites have been marked. The National Parks are listed below.

#### Locations and Areas of National Parks

| Park                       | Location                                                                | Area             |
|----------------------------|-------------------------------------------------------------------------|------------------|
|                            |                                                                         | sq. miles        |
| <b>Scenic</b>              |                                                                         |                  |
| Jasper.....                | Western Alberta, on east slope of Rockies...                            | 4,200·0          |
| Banff.....                 | Western Alberta, on east slope of Rockies...                            | 2,564·0          |
| Prince Albert.....         | Central Saskatchewan, north of Prince Albert                            | 1,496·0          |
| Riding Mountain.....       | Southwestern Manitoba, west of Lake Winnipeg.....                       | 1,148·0          |
| Kootenay.....              | Southeastern British Columbia, on west slope of Rockies.....            | 543·0            |
| Glacier.....               | Southeastern British Columbia, on summit of Selkirk Range.....          | 521·0            |
| Yoho.....                  | Eastern British Columbia, on west slope of Rockies.....                 | 507·0            |
| Cape Breton Highlands..... | Northern part of Cape Breton Island, Nova Scotia.....                   | 390·0            |
| Waterton Lakes.....        | Southern Alberta, adjoining Glacier Park in Montana, U.S.A.....         | 204·0            |
| Mount Revelstoke.....      | Southeastern British Columbia, on west slope of Selkirks.....           | 100·0            |
| Fundy.....                 | On Bay of Fundy between Moncton and Saint John in New Brunswick.....    | 80·0             |
| Prince Edward Island.....  | North shore of Prince Edward Island.....                                | 7·0              |
| Point Pelee.....           | On Lake Erie, southern Ontario.....                                     | 6·0              |
| Georgian Bay Islands.....  | In Georgian Bay, north of Midland, Ontario                              | 5·4              |
| St. Lawrence Islands.....  | In the St. Lawrence River between Morrisburg and Kingston, Ontario..... | 189·4<br>(acres) |

## Locations and Areas of National Parks—concluded

| Park                        | Location                                                                                                | Area      |
|-----------------------------|---------------------------------------------------------------------------------------------------------|-----------|
| <b>Wild Animal</b>          |                                                                                                         | sq. miles |
| Wood Buffalo.....           | Partly in Alberta and partly in the North-west Territories, between the Athabaska and Slave Rivers..... | 17,300.0  |
| Elk Island.....             | Central Alberta, near Edmonton.....                                                                     | 75.0      |
| <b>Historic</b>             |                                                                                                         | acres     |
| Fortress of Louisbourg..... | Cape Breton Island, Nova Scotia, 25 miles from Sydney.....                                              | 340.0     |
| Fort Lennox.....            | Ile-aux-Noix, Quebec, near St. Johns.....                                                               | 210.0     |
| Fort Beauséjour.....        | New Brunswick, near Sackville.....                                                                      | 81.0      |
| Fort Prince of Wales.....   | Northern Manitoba, near Churchill.....                                                                  | 50.0      |
| Fort Battleford.....        | Four miles south of North Battleford, Saskatchewan.....                                                 | 36.7      |
| Fort Anne.....              | Nova Scotia at Annapolis Royal.....                                                                     | 31.0      |
| Port Royal.....             | Lower Granville, Nova Scotia, eight miles from Annapolis Royal.....                                     | 17.0      |
| Lower Fort Garry.....       | Twenty miles north of Winnipeg, Manitoba.....                                                           | 13.0      |
| Fort Wellington.....        | Prescott, Ontario.....                                                                                  | 8.5       |
| Fort Malden.....            | Amherstburg, Ontario.....                                                                               | 5.0       |
| Fort Chambly.....           | Chambly, Quebec.....                                                                                    | 2.5       |

In addition to the Parks listed above, Gatineau Park, a 32,000-acre area in the Gatineau Hills just north of the Federal Capital, has been set aside as a recreational park and game sanctuary. It is an area of wooded hills and valleys, of lakes and streams, in which trails, picnic spots and camping sites are available for summer enjoyment. In winter it is the principal ski centre for the Ottawa district. Gatineau Park, which is planned as an 80,000-acre development, is administered by the Federal District Commission.

*Summer residence on the Kingsmere estate of the late Rt. Hon. W. L. Mackenzie King, situated within Gatineau Park, which was bequeathed to the nation as a parkland, wildlife sanctuary and forest preserve.*





Mackenzie King Bridge, with its temporary approach, on the day it was opened to traffic.

The official residence of Canada's Prime Ministers.



Progress of the National Capital Plan, which is being carried out by the Federal District Commission in co-operation with the municipal and provincial governments concerned:

1. Mackenzie King Estate, Gatineau Park, gift to the nation.
2. Government Printing Bureau, under construction.
3. Permanent residence for Canada's Prime Ministers, opened 1951.
4. Central Mortgage and Housing Corporation Building, to be completed in 1952.
5. Additions to National Research Council laboratories, under construction.
6. Mackenzie King Bridge, with its temporary western approach, opened to traffic December 1951.
7. Veterans Affairs building, Wellington Street, under construction.
8. Dominion Bureau of Statistics building, Tunney's Pasture, to be completed in 1952.
9. Additions to the Bureau of Mines laboratories, under construction.
10. Mooney's Bay Recreation Area, City project on Federal Government property.
11. Extensions and improvements to Ottawa Airport, under construction.
12. New highway bridge over rail belt, Metcalfe Road.
13. New railway belt line and yards, under construction.
14. New highway bridge over rail belt, Russell Road.



CANADA'S NATIONAL CAPITAL OF THE FUTURE

Model of the Capital Plan showing Parliament Hill, Confederation Square and the eastern entrance to the city.



Looking northwest from the eastern entrance towards Parliament Hill.

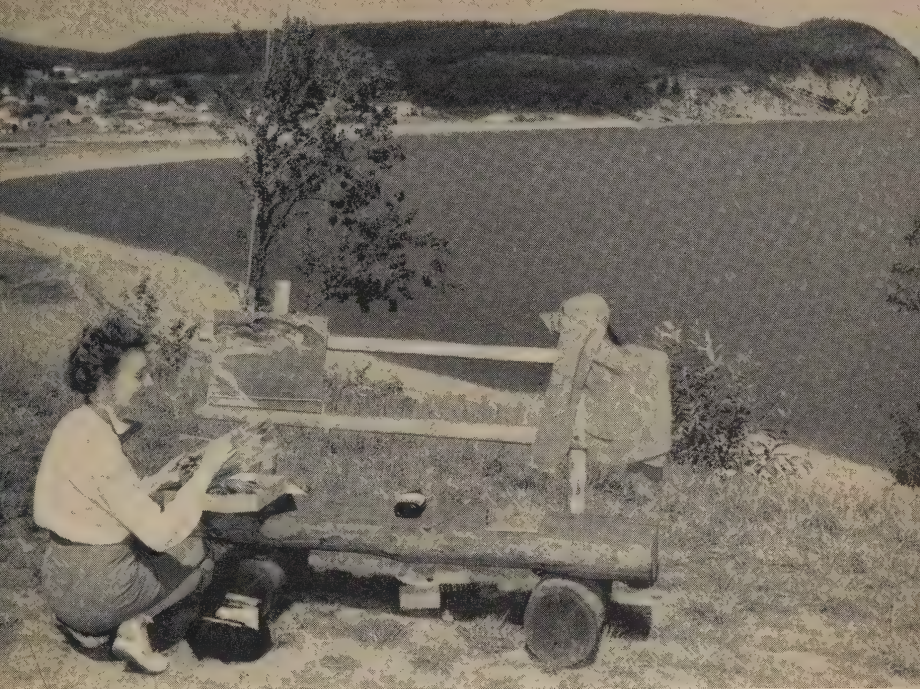
Two of the proposed government buildings now under construction

Central Mortgage  
and Housing Cor-  
poration Building



Dominion Bureau of  
Statistics Building





*An artist portrays on canvas the beauty of Cape Owls Head in Fundy National Park, N.B.  
Nestled in the cove is the village of Alma.*

## Provincial Parks

Six of the ten provinces of Canada have established Provincial Parks. While in many cases they are undeveloped areas set aside in their natural state, some of the larger parks, especially in British Columbia, Quebec and Ontario, are highly developed and well served with hotels and other tourist accommodation and have organized recreational facilities. The total areas of provincial park land in the different provinces are as follows: British Columbia, 14,081 sq. miles; Quebec, 12,000 sq. miles; Ontario, 5,212 sq. miles; Saskatchewan, 1,685 sq. miles; Newfoundland, 42 sq. miles; and Alberta 14 sq. miles. The most important in point of size (all over 1,000 sq. miles in area) are:—

Tweedsmuir, B.C.  
Wells Grey, B.C.  
Hamber, B.C.  
Lac La Ronge, Sask.  
Algonquin, Ont.  
Quetico, Ont.

Laurentides, Que.  
La Vérendrye, Que.  
Chibougamau Fish and Game  
Reserve, Que.  
Trembling Mountain, Que.  
Lac Kipawa Fish and Game  
Reserve, Que.

Detailed information regarding Provincial Parks may be obtained from the respective Provincial Governments.







# The People

## • Population

THE total population of Canada is now just over 14,000,000. The manner of growth from the 3,215 inhabitants, exclusive of aborigines, recorded at the first census in 1666 to the present has been decidedly cyclical, the peaks of growth coinciding with important points in history—the American Revolution, the Irish famine, the building of the railways and the opening of the West. However, the most spectacular expansion took place during the first part of the present century when the wheat-growing potentialities of the Canadian west were recognized and the prairies became more accessible. Each year from 1900 to 1914 large numbers of immigrants were attracted to Canada, the peak of 400,870 being reached in 1913. After the outbreak of war in 1914 immigration declined and although it increased again during the 1920's, it dropped during the depression years of the 1930's and came almost to a standstill during the second world war. The greatest increase in the population in the 1941-51 period occurred in the years following the end of the War when the birth rate was higher and immigration was resumed. Also the entry of Newfoundland into Confederation as Canada's tenth province in 1949 was responsible for a considerable addition to the population.

Canada's people may be roughly divided into three groups. Those of British origin, who account for a little less than half the total, are spread out across the country but are somewhat more concentrated in the Maritime Provinces, Ontario and British Columbia. Over 30 p.c. of the population are descendants of the early French colonists and, although many of them now live in other parts of Canada, they are mostly located in the Province of Quebec. The third segment of the population is a composite of other Europeans and aborigines, most of the former being descendants of immigrants who came to Canada in the early part of the present century and settled largely in the middle west. The immigrants arriving since the end of the second world war are mainly from the United Kingdom, the United States, France, the Netherlands, Germany and Poland and are widely scattered throughout the country.

The population of Canada is distributed mainly along the southern border, the heaviest concentrations being in southeastern Ontario and southeastern Quebec. However there is a definite northern movement in progress as the population increases, the vast northern resources come under development and remote areas become more accessible.

**Population Trends 1941-51.**—At the end of December 1951, the results of the Ninth Decennial Census taken in June of that year were still largely in the tabulation stages. However, statistics were available from this latest stock-taking of the nation to show the changes that occurred in the total numbers and distribution of Canada's population since the time of the previous complete census in 1941.

Canada in 1951 had close to 2,500,000 more people within her boundaries than she had a decade before. Over 357,000 of this increase may be attributed



*Carleton Place, Ont., typical of many long-established towns in eastern Canada that have grown gradually and in most cases contain a variety of small industries.*

to the entry of Newfoundland into Confederation with Canada in 1949. In the Maritime Provinces there was an increase of 3 p.c. in the population of Prince Edward Island, 10 p.c. in Nova Scotia and 12 p.c. in New Brunswick. Quebec and Ontario each increased by 20 p.c. in the ten-year period, and registered the largest numerical gains among the provinces of 678,000 and 775,000, respectively. Striking differences occurred in the rates of growth of the three Prairie Provinces with Manitoba gaining 6 p.c., Saskatchewan losing 7 p.c., and Alberta increasing almost 18 p.c. British Columbia showed the greatest rate of growth with a gain of more than 40 p.c. in population over the decade.

The mixed trends in the Prairie Provinces are further illustrated by comparing the 1941 and 1951 population totals with those from the 1946 Census of these three Provinces. Manitoba's population showed a slight loss between 1941 and 1946 and then gained over 44,000 between 1946 and 1951. In Saskatchewan the net loss in population during the war years was most striking, the decrease in total population from 1941 to 1946 amounting to over 60,000. This drop levelled off between 1946 and 1951. The recent trend toward increased mechanization of agriculture, together with fewer and larger farms, resulted in the exodus of thousands of persons from the rural parts of the prairies, some to neighbouring provinces and others to more populated sections of the same province. In many cases farms were worked by operators who commuted from the towns and villages to which they had moved.



Alberta's large gain in population between 1946 and 1951 was due mainly to the important oil discoveries in the central parts of the Province, causing, for example, the population of the city of Edmonton to increase by 70 p.c. in the past five years.

While most of Canada's larger cities showed sizeable increases in population during the past ten years, the phenomenal rate of growth in the suburban fringe areas was more impressive. Toronto was the most notable example—the city proper increased by only a few thousand persons, but the metropolitan area rose in population by over 200,000. A like development took place in the cities of Montreal, Vancouver, Winnipeg, Hamilton and Quebec. Remarkable, too, was the growth of some of the smaller industrialized cities and towns, such as Arvida in Quebec, Noranda and Sarnia in Ontario.

*Iroquois Falls, a model company town in northern Ontario, built around one industry, a large pulp and newsprint mill.*





## Population of Canada, by Provinces, Census Years 1891-1951

NOTE.—The figures for certain censuses are not altogether comparable but the qualifications are for the most part technical and are given in detail in the Census reports.

| Province or Territory | 1891      | 1901      | 1911      | 1921                   | 1931       | 1941       | 1951       |
|-----------------------|-----------|-----------|-----------|------------------------|------------|------------|------------|
| Nfld.                 |           |           |           |                        |            |            | 361,416    |
| P.E.I.                | 109,078   | 103,259   | 93,728    | 88,615                 | 88,038     | 95,047     | 98,429     |
| N.S.                  | 450,396   | 459,574   | 492,338   | 523,837                | 512,846    | 577,962    | 642,584    |
| N.B.                  | 321,263   | 331,120   | 351,889   | 387,876                | 408,219    | 457,401    | 515,697    |
| Que.                  | 1,488,535 | 1,648,898 | 2,005,776 | 2,360,510              | 2,874,662  | 3,331,882  | 4,055,681  |
| Ont.                  | 2,114,321 | 2,182,947 | 2,527,292 | 2,933,662              | 3,431,683  | 3,787,655  | 4,597,542  |
| Man.                  | 152,506   | 255,211   | 461,394   | 610,118                | 700,139    | 729,744    | 776,541    |
| Sask.                 |           | 91,279    | 492,432   | 757,510                | 921,785    | 895,992    | 831,728    |
| Alta.                 |           | 73,022    | 374,295   | 588,454                | 731,605    | 796,169    | 939,501    |
| B.C.                  | 98,173    | 178,657   | 392,480   | 524,582                | 694,263    | 817,861    | 1,165,210  |
| Yukon.                |           | 27,219    | 8,512     | 4,157                  | 4,230      | 4,914      | 9,096      |
| N.W.T.                | 98,967    | 20,129    | 6,507     | 8,143                  | 9,316      | 12,028     | 16,004     |
| Canada                | 4,833,239 | 5,371,315 | 7,206,643 | 8,787,949 <sup>1</sup> | 10,376,786 | 11,506,655 | 14,009,429 |

<sup>1</sup> Includes 485 members of the Royal Canadian Navy, who were recorded separately.

## Populations of Census Metropolitan Areas, 1941 and 1951

| Area            | 1941      | 1951      | Area              | 1941                | 1951    |
|-----------------|-----------|-----------|-------------------|---------------------|---------|
|                 | No.       | No.       |                   | No.                 | No.     |
| Montreal, Que.  | 1,145,282 | 1,395,400 | Windsor, Ont.     | 123,973             | 157,672 |
| Toronto, Ont.   | 909,928   | 1,117,470 | Calgary, Alta.    | 93,021              | 139,105 |
| Vancouver, B.C. | 377,447   | 530,728   | Halifax, N.S.     | 98,636              | 133,931 |
| Winnipeg, Man.  | 299,937   | 354,069   | London, Ont.      | 91,024              | 121,516 |
| Ottawa, Ont.    | 226,290   | 281,908   | Victoria, B.C.    | 75,560              | 104,303 |
| Quebec, Que.    | 224,756   | 274,827   | Saint John, N.B.  | 70,927              | 78,337  |
| Hamilton, Ont.  | 197,732   | 259,685   | St. John's, Nfld. | 59,474 <sup>1</sup> | 67,749  |
| Edmonton, Alta. | 97,842    | 173,075   |                   |                     |         |

<sup>1</sup> Census of Newfoundland, 1945. Figure for 1941 not available.

## Populations of Incorporated Urban Centres with 10,000 or More Inhabitants, 1941 and 1951

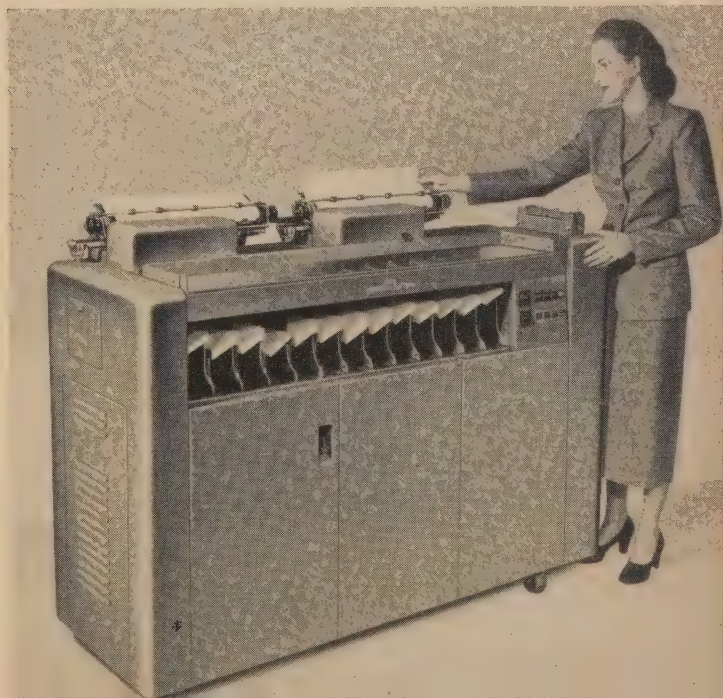
| Urban Centre              | 1941   | 1951    | Urban Centre          | 1941    | 1951    |
|---------------------------|--------|---------|-----------------------|---------|---------|
|                           | No.    | No.     |                       | No.     | No.     |
| Arvida, Que.              | 4,581  | 11,078  | Fredericton, N.B.     | 10,062  | 16,018  |
| Barrie, Ont.              | 9,725  | 12,514  | Galt, Ont.            | 15,346  | 19,207  |
| Belleville, Ont.          | 15,710 | 19,519  | Glace Bay, N.S.       | 25,147  | 25,586  |
| Brandon, Man.             | 17,383 | 20,598  | Granby, Que.          | 14,197  | 21,989  |
| Brantford, Ont.           | 31,948 | 36,727  | Grand Mère, Que.      | 8,608   | 11,089  |
| Brockville, Ont.          | 11,342 | 12,301  | Guelph, Ont.          | 23,273  | 27,386  |
| Calgary, Alta.            | 88,904 | 129,060 | Halifax, N.S.         | 70,488  | 85,589  |
| Cap-de-la-Madeleine, Que. | 11,961 | 18,667  | Hamilton, Ont.        | 166,337 | 208,321 |
| Charlottetown, P.E.I.     | 14,821 | 15,887  | Hull, Que.            | 32,947  | 43,483  |
| Chatham, Ont.             | 17,369 | 21,218  | Jacques Cartier, Que. | 1       | 22,450  |
| Chicoutimi, Que.          | 16,040 | 23,216  | Joliette, Que.        | 12,749  | 16,064  |
| Cornwall, Ont.            | 14,117 | 16,899  | Jonquière, Que.       | 13,769  | 21,618  |
| Dartmouth, N.S.           | 10,847 | 15,037  | Kingston, Ont.        | 30,126  | 33,459  |
| Drummondville, Que.       | 10,555 | 14,341  | Kitchener, Ont.       | 35,657  | 44,867  |
| Eastview, Ont.            | 7,966  | 13,799  | Lachine, Que.         | 20,051  | 27,773  |
| Edmonton, Alta.           | 93,817 | 159,631 | Lasalle, Que.         | 4,651   | 11,633  |
| Edmundston, N.B.          | 7,096  | 10,753  | Leaside, Ont.         | 6,183   | 16,233  |
| Forest Hill, Ont.         | 11,757 | 15,305  | Lethbridge, Alta.     | 14,612  | 22,947  |
| Fort William, Ont.        | 30,585 | 34,947  | Lévis, Que.           | 11,991  | 13,162  |
|                           |        |         | London, Ont.          | 78,264  | 95,343  |

**Populations of Incorporated Urban Centres with 10,000 or More  
Inhabitants, 1941 and 1951—concluded**

| Urban Centre            | 1941    | 1951      | Urban Centre            | 1941    | 1951    |
|-------------------------|---------|-----------|-------------------------|---------|---------|
|                         | No.     | No.       |                         | No.     | No.     |
| Longueuil, Que.....     | 7,087   | 11,103    | St. John's, Nfld.....   | ..      | 52,873  |
| Magog, Que.....         | 9,034   | 12,423    | St. Laurent, Que.....   | 6,242   | 20,426  |
| Medicine Hat, Alta...   | 10,571  | 16,364    | St. Michel, Que.....    | 2,956   | 10,539  |
| Mimico, Ont.....        | 8,070   | 11,342    | St. Thomas, Ont.....    | 17,132  | 18,173  |
| Moncton, N.B.....       | 22,763  | 27,334    | Saint John, N.B.....    | 51,741  | 50,779  |
| Montreal, Que.....      | 903,007 | 1,021,520 | Sarnia, Ont.....        | 18,734  | 34,697  |
| Montreal N., Que.....   | 6,152   | 14,081    | Saskatoon, Sask.....    | 43,027  | 53,268  |
| Mont Royal, Que.....    | 4,888   | 11,352    | Sault Ste. Marie, Ont.. | 25,794  | 32,452  |
| Moose Jaw, Sask.....    | 20,753  | 24,355    | Shawinigan Falls, Que.  | 20,325  | 26,903  |
| New Toronto, Ont.....   | 9,504   | 11,194    | Sherbrooke, Que.....    | 35,965  | 50,543  |
| New Waterford, N.S....  | 9,302   | 10,423    | Sillery, Que.....       | 1       | 10,376  |
| New Westminster, B.C.   | 21,967  | 28,639    | Sorel, Que.....         | 12,251  | 14,961  |
| Niagara Falls, Ont..... | 20,589  | 22,874    | Stratford, Ont.....     | 17,038  | 18,785  |
| North Bay, Ont.....     | 15,599  | 17,944    | Sudbury, Ont.....       | 32,203  | 42,410  |
| North Vancouver, B.C.   | 8,914   | 15,687    | Sydney, N.S.....        | 28,305  | 31,317  |
| Orillia, Ont.....       | 9,798   | 12,110    | Thetford Mines, Que..   | 12,716  | 15,095  |
| Oshawa, Ont.....        | 26,813  | 41,545    | Three Rivers, Que....   | 42,007  | 46,074  |
| Ottawa, Ont.....        | 154,951 | 202,045   | Timmins, Ont.....       | 28,790  | 27,743  |
| Outremont, Que.....     | 30,751  | 30,057    | Toronto, Ont.....       | 667,457 | 675,754 |
| Owen Sound, Ont.....    | 14,002  | 16,423    | Trail, B.C.....         | 9,392   | 11,430  |
| Pembroke, Ont.....      | 11,159  | 12,704    | Trenton, Ont.....       | 8,323   | 10,085  |
| Penticton, B.C.....     | 1       | 10,548    | Truro, N.S.....         | 10,272  | 10,756  |
| Peterborough, Ont.....  | 25,350  | 38,272    | Valleyfield (Salaberry  |         |         |
| Port Arthur, Ont.....   | 24,426  | 31,161    | de), Que.....           | 17,052  | 22,414  |
| Prince Albert, Sask.... | 12,508  | 17,149    | Vancouver, B.C.....     | 275,353 | 344,833 |
| Quebec, Que.....        | 150,757 | 164,016   | Verdun, Que.....        | 67,349  | 77,391  |
| Regina, Sask.....       | 58,245  | 71,319    | Victoria, B.C.....      | 44,068  | 51,331  |
| Rimouski, Que.....      | 7,009   | 11,565    | Victoriaville, Que....  | 8,516   | 13,124  |
| Rouyn, Que.....         | 8,808   | 14,633    | Waterloo, Ont.....      | 9,025   | 11,991  |
| St. Boniface, Man.....  | 18,157  | 26,342    | Welland, Ont.....       | 12,500  | 15,382  |
| St. Catharines, Ont.... | 30,275  | 37,984    | Westmount, Que.....     | 26,047  | 25,222  |
| St. Hyacinthe, Que....  | 17,798  | 20,236    | Windsor, Ont.....       | 105,311 | 120,049 |
| St. Jean, Que.....      | 13,646  | 19,305    | Winnipeg, Man.....      | 221,960 | 235,710 |
| St. Jerome, Que.....    | 11,329  | 17,685    | Woodstock, Ont.....     | 12,461  | 15,544  |

<sup>1</sup> Not incorporated in 1941.

Returns for the Ninth Decennial Census of Canada, taken June 1, 1951, are being tabulated on electronic statistical machines which combine the functions of sorting, counting, accumulating, editing and printing of information. Utilizing cards punched with significant data, the machine distributes unit counts into as many as 60 different classifications at the rate of seven per second.



## Aboriginal Races

**Indians.**—The Indians of Canada are not one race but are divided into a number of widely scattered tribes, speaking different languages and differing in national and cultural background and in economy and social living. The Indians have long been regarded as a separate and special responsibility of the Government and their administration is now under the jurisdiction of the Indian Affairs Branch of the Department of Citizenship and Immigration, with the exception of medical and health services which are provided by the Department of National Health and Welfare. There are at present about 137,000 Indians in Canada, exclusive of those who have become enfranchised.

Indian administration, the primary function of which has always been to conduct Indian affairs in such manner as to enable them to become increasingly self-supporting and independent, included under former Indian legislation the management of Indian lands and reserves, trust funds, welfare projects, relief, family allowances, education, descent of property, rehabilitation of Indian veterans on reserves, Indian treaty obligations, enfranchisement of Indians, and a variety of other matters. A complete examination of Indian affairs was conducted by a special Joint Committee of the Senate and House of Commons during the Parliamentary Sessions of 1946, 1947 and 1948 and, as a result, the previous legislation under which Indian affairs were administered was repealed and a new Act (15 Geo. VI, c. 29) brought into force on Sept. 4, 1951. This constituted the first complete revision of Indian legislation since 1880.

Under the new Act the Indians will have more responsibility for the conducting of their own affairs in the hope that such responsibility will hasten their advancement towards self-reliance. They will have a greater measure of self-government and, through their Band Councils, more control over their funds and lands.

Hereafter a register will be maintained which will eventually include the names and particulars of every Indian in Canada and no others. A clear definition of those entitled to be registered as Indians and therefore entitled to benefits provided under the Act is presented.

Reserves, or lands set aside for the use of Indian Bands, number more than 2,000, varying in size from a few acres to 500 sq. miles. Most of this reserve land is community property, the individual holding being only the right of occupation, but under the new legislation an Indian may be allotted possession of land within a reserve by the Council of the Band and receive a Certificate of Possession. Also, an Indian may be located on land and granted a Certificate of Occupation during a probationary period. If approved, such land may be transferred to the Band or to another member of the Band. Real and personal property, with certain qualifications, held by an Indian on a reserve is exempt from taxation and legal processes. Former restrictions placed on the selling or bartering of produce from reserves in the Prairie Provinces have been modified and permission may now be given for disposing of such produce without a permit.

All members of a Band who are 21 years of age or over, unless otherwise disqualified, are now eligible to vote in Band elections or other votes under the Act. Indian women may also vote and may stand for election to office of



chief or councillor. The restrictions prohibiting the participation of Indians in shows and stampedes and on the performance of Indian festivals and ceremonies were removed, together with those on the solicitation of money by the Indians for the prosecution of tribal claims.

The Indian Trust Fund is made up of more than 500 separate accounts belonging to the different Bands, derived mainly from the proceeds of land sales and leases, disposition of timber, mineral and oil rights. At Mar. 31, 1951, the Fund totalled \$20,232,930. Greater scope has been given to the Indians through their Band Councils in the expenditure of tribal funds. With few exceptions, expenditure, formerly at the discretion of the Governor in Council or the Minister, now requires the consent of the Band Council. Total expenditure from the Fund during the year ended Mar. 31, 1951, was \$2,764,-222. Rents from lands leased on behalf of an Indian are now to be paid to the Superintendent of the reserve and turned over directly to the Indian, instead of being forwarded to the Department at Ottawa. A Revolving Fund assists in the purchase of farm implements, machinery, live stock, fishing equipment, seed grain, materials used in native handicrafts, motor-vehicles, gas and oil, fencing materials and other equipment, and in the payment of repair and wage bills.

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*The "Black Hawks", bantam hockey team from Sioux Lookout Indian Residential School, visit Ottawa to play exhibition games. These modern Indian boys listen seriously to a pep talk in the shadow of a ceremonial mural of their ancestors in the Chateau Laurier hotel.*



Continuing the Departmental housing program, \$1,107,691 was spent during the year ended Mar. 31, 1951, for the repair or construction of new homes. During the calendar year 1951, \$3,619,075 was paid either in cash or in kind on behalf of Indian children registered to receive the Family Allowance; at the end of the year 49,471 Indian children were registered.

Day schools are operated by the Department on Indian reserves and residential schools are conducted under joint Departmental and religious auspices. The practice generally followed of providing for the education of children of Indians working off the reserves and for the education of Indian children in non-Indian schools was given statutory authority under the new Act. The increase in the number of pupils in educational classes is very encouraging. In the school year 1950-51, the 26,903 pupils enrolled was an increase of 1,849 over the previous year; the 1,051 Indian pupils in secondary schools and colleges represented an increase of 279. Two new residential schools were completed during the year and the standard of instruction improved by a decrease of 19 in the number of non-qualified teachers and an increase of 70 in the number of teachers holding first-class certificates.

The hope is that, through the increased scope granted to the Indians and through wise assistance, they will become self-reliant, responsible citizens, fully qualified to take their place in the political, social and economic life of the country. Provision is made for their enfranchisement, either individually or in bands. Such enfranchisement takes place only after careful consideration and approval by the Governor in Council, for when an Indian is enfranchised he ceases to be an Indian under the law and acquires full rights and responsibilities of Canadian citizenship.

**Eskimos.**—The Eskimos in Canada are found principally north of the tree-line on the northern fringe of the mainland, around the coast of Hudson Bay, and on some of the islands of the Arctic Archipelago. Most of the Eskimos are essentially coastal dwellers, obtaining their food and clothing from the mammals of the sea. There are, however, groups of Eskimos living in the interior of Keewatin District on the west side of Hudson Bay who are inland people and who subsist chiefly on caribou and fish. In January 1951 the Eskimo population of Canada, exclusive of Newfoundland, was estimated at 8,550.

The economy of these nomadic people depends entirely on trapping, hunting and fishing. Trapping, chiefly of the white fox, produces pelts to trade at the posts for the goods of civilization. Seal, walrus, white whale, caribou and Arctic char (sea trout) are the principal sources of native food.

The Eskimos have little or no organization beyond the family. They hunt in small groups, usually of two or more families with perhaps an outstanding individual as leader. Each group, following the movements of game and the changing seasons, secures its livelihood in its own district which has no definite boundaries. The Government of Canada, through the Northern Administration and Lands Branch, Department of Resources and Development, has made continuous efforts to preserve the natural resources in Eskimo territory.

In recent years, the Canadian Government has considered with anxiety what the advance of civilization into the Arctic may mean to the future of its Eskimo citizens. Considerable sums have been spent in providing services which, it is hoped, will help the Eskimo to adjust himself to an Arctic

*Abraham, an Eskimo of the Port Harrison district of northwestern Quebec, proudly brings some of his handiwork to the manager of the Hudson's Bay Co. Post.*



world that is beginning to change after centuries of isolation. Canada's program for her Eskimos is a long-term one. It embraces education, health services, family allowances, handicrafts and protective administration.

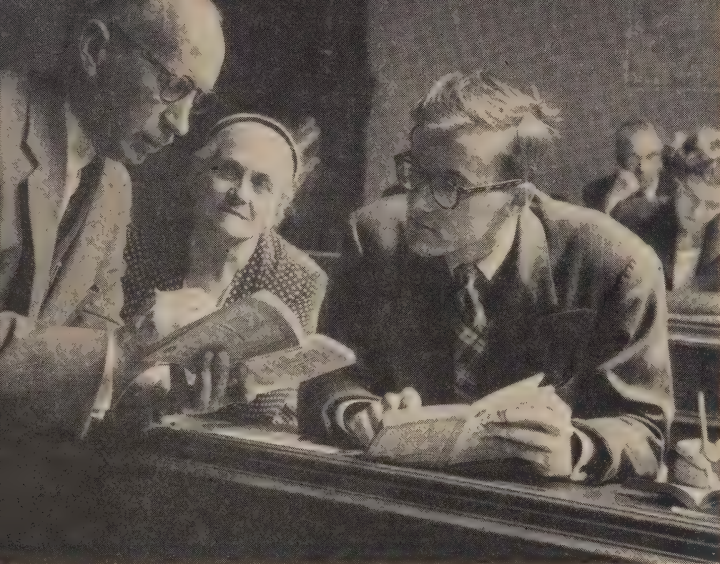
In the Eastern Arctic, Eskimo children attend government day schools located at a few of the settlements. At other settlements, they are given some education at mission day schools but, because of their nomadic tendency, they seldom remain very long at the settlements and the periods for teaching are therefore short. The Eastern Arctic Eskimos, however, have mastered a system of syllabic writing which most of them can now read and write proficiently. Advantage of this accomplishment has been taken to provide educational material on health matters, hygiene and native economics. Eskimo children along the Western Arctic Coast and the Mackenzie Delta attend government day schools or mission residential schools.

Medical and health services are provided by the Federal Government, assisted by residing missionaries, traders and the Royal Canadian Mounted Police. Nursing stations have been set up and mission hospitals with resident government doctors are maintained, with the assistance of government grants, at Aklavik, Chesterfield Inlet and Pangnirtung. Government doctors and dentists usually accompany the Eastern Arctic Patrol to treat the natives at each point of call.

Family allowances are paid to Eskimo families in kind from a list of selected food items. This list is designed to supplement, not supplant, normal Eskimo dietary habits. The Canadian Handicrafts Guild, with government assistance, is encouraging Eskimo handicraft by instruction and by securing markets.

The R.C.M.P. detachments throughout the Far North act as local representatives of the Government in all matters relating to Eskimo welfare. Contact is also maintained by radio, by inspection flights, and through the Eastern Arctic Patrol which carries representatives of all Government Departments concerned on annual inspection tours of the Arctic.





*Immigrants applying for Canadian citizenship attend classes to fulfil the requirement for an adequate knowledge of the English or the French language.*

## *Immigration*

During the period from the end of World War II to July 31, 1951, a total of 535,784 immigrants entered Canada. British immigrants from overseas numbered 191,937, immigrants of North European origin 97,587, immigrants from the United States 51,106, and those of other races 195,154. Of the total, 139,180 were displaced persons.

In 1950 efforts were extended to bring into Canada an increasing number of skilled workers to man the growing industrial machine and to provide the agriculturists needed to maintain at full production the basic industry of the country. A major change was made in the immigration policy (Order in Council P.C. 2856, dated July 1, 1950) abolishing the closely defined admissible categories and allowing the entry of any suitable European immigrant regardless of country of origin.

This change in policy was accompanied by a thorough revision of admission procedures in Canada and abroad, designed to reduce formalities to a minimum, to facilitate the arrival of immigrants sponsored by residents of Canada or selected by immigration officials, and to give applicants a true picture of the opportunities awaiting them in this country. Overseas staffs were increased to enable more rapid handling of applications and to allow more time to be spent in careful selection of immigrants. In addition, from February to November of 1951 an Assisted Passage Plan was in effect under which part or the whole cost of transportation to Canada was advanced to those possessing skills in short supply in this country. Such advances were made on a recoverable basis to those not having sufficient funds to pay their passage. Also, accommodation on west-bound flights of regular Trans-Canada Air Lines aircraft from the United Kingdom and France was made available to immigrants at a cost equivalent to tourist-class passage by sea, the remainder of the cost being assumed by the Government.

As a result of these measures the number of immigrants reaching Canada increased sharply during the first seven months of 1951, the total for that period being 99,421 as compared with 44,010 for the same period of 1950. In fact, the total for January to July 1951 exceeded by 25,509 the total of 73,912 for the entire year 1950. Monthly figures for 1951 compared with 1950 are as follows:—

|               | 1950   | 1951   | P.C.<br>Increase |
|---------------|--------|--------|------------------|
| January.....  | 3,710  | 5,637  | 52               |
| February..... | 4,959  | 8,419  | 70               |
| March.....    | 5,801  | 11,858 | 104              |
| April.....    | 7,515  | 14,188 | 89               |
| May.....      | 8,362  | 20,254 | 142              |
| June.....     | 6,939  | 19,429 | 180              |
| July.....     | 6,724  | 19,636 | 192              |
| TOTALS.....   | 44,010 | 99,421 | 126              |

During these first seven months of 1951, 17,662 British immigrants from overseas were admitted, a figure surpassing by over 4,000 the total of 13,427 for the entire year 1950; Dutch immigrants numbered 13,153, an increase of 7,248 over the number for the first seven months of 1950; immigrants from France numbered 3,020 as compared with 622 the year before;

Many recent immigrants have been very highly successful in adjusting their farming knowledge to Canadian conditions.



and, as the effect of the removal of enemy alien restrictions began to be felt, 11,368 Germans were admitted as compared with 2,866 up to July in 1950.

## Emigration

The extent of emigration from Canada has always been difficult to measure due to the absence of direct statistics. Recently, however, information required by the Foreign Exchange Control Board of applicants for change of status from resident to non-resident has provided some data on the number and characteristics of Canadian emigrants. Figures are available from July 1948 to December 1951, except for data on occupations which are available only to June 30, 1950. They are incomplete to the extent that they do not include persons leaving the country without application to the Foreign Exchange Control Board—there is no legal requirement to do so where the transfer of funds is not in question.

The figures show that almost half the emigrants from Canada are from the Province of Ontario, followed by British Columbia and Quebec. However, the proportion of emigrants to population in the different provinces varies only from 0.1 p.c. to 0.4 p.c. As is understandable, the largest number goes to the United States and about 70 p.c. of these are in the productive ages, 20 to 64 years. In the year ended June 30, 1950, 13,911 applicants left the country taking with them 4,199 wives and 5,654 other dependants. About 90 p.c. of the 8,550 male applicants and 60 p.c. of the 5,361 female applicants were gainfully occupied. Many of the non-gainfully occupied male emigrants were students and most of the non-occupied females were dependent wives and children.

### Summary Statistics of Emigration from Canada, 1949-51

| Classification            | Year ended June 30 — |               |               |
|---------------------------|----------------------|---------------|---------------|
|                           | 1949                 | 1950          | 1951          |
| <b>Totals.....</b>        | <b>28,068</b>        | <b>23,764</b> | <b>25,205</b> |
| Province—                 |                      |               |               |
| Newfoundland.....         | 71                   | 124           | 204           |
| Prince Edward Island..... | 134                  | 82            | 87            |
| Nova Scotia.....          | 1,105                | 771           | 942           |
| New Brunswick.....        | 853                  | 661           | 545           |
| Quebec.....               | 3,890                | 3,399         | 3,559         |
| Ontario.....              | 12,157               | 10,925        | 11,150        |
| Manitoba.....             | 1,419                | 1,384         | 1,724         |
| Saskatchewan.....         | 1,136                | 885           | 915           |
| Alberta.....              | 1,520                | 1,371         | 1,710         |
| British Columbia.....     | 5,834                | 4,150         | 4,356         |
| Yukon and N.W.T.....      | 13                   | 12            | 13            |
| Destination—              |                      |               |               |
| United States.....        | 21,552               | 17,884        | 20,378        |
| United Kingdom.....       | 4,077                | 3,691         | 2,837         |
| Other Commonwealth.....   | 838                  | 878           | 725           |
| Other countries.....      | 1,601                | 1,311         | 1,265         |
| Age Group—                |                      |               |               |
| 0-19 years.....           | 6,659                | 5,432         | 6,500         |
| 20-44 years.....          | 15,216               | 12,930        | 13,082        |
| 45-64 years.....          | 4,383                | 3,738         | 4,032         |
| 65 or over.....           | 1,334                | 1,200         | 1,107         |
| Not stated.....           | 476                  | 464           | 484           |

<sup>1</sup> From entry into Confederation, Mar. 31 to June 30.



## *Emigrants from Canada, by Occupations, 1949 and 1950*

| Occupation                            | Year ended June 30, 1949 |               | Year ended June 30, 1950 |              |
|---------------------------------------|--------------------------|---------------|--------------------------|--------------|
|                                       | Applicants               | Dependants    | Applicants               | Dependants   |
| Agriculture.....                      | 767                      | 973           | 632                      | 742          |
| Fishing, hunting and trapping.....    | 24                       | 16            | 20                       | 18           |
| Logging.....                          | 92                       | 36            | 52                       | 37           |
| Mining and quarrying.....             | 158                      | 143           | 83                       | 75           |
| Manufacturing.....                    | 2,621                    | 2,814         | 2,126                    | 2,190        |
| Construction.....                     | 946                      | 1,052         | 737                      | 783          |
| Transportation and communication..... | 514                      | 495           | 452                      | 444          |
| Trade.....                            | 1,096                    | 1,199         | 984                      | 1,090        |
| Finance.....                          | 79                       | 119           | 82                       | 106          |
| Professional service.....             | 2,191                    | 1,456         | 2,067                    | 1,446        |
| Public service.....                   | 121                      | 122           | 84                       | 69           |
| Recreational service.....             | 102                      | 73            | 100                      | 57           |
| Personal service.....                 | 1,043                    | 389           | 948                      | 367          |
| Clerical.....                         | 2,151                    | 802           | 1,858                    | 604          |
| Labourers.....                        | 799                      | 439           | 669                      | 305          |
| Homemakers.....                       | 1,894                    | 1,276         | 1,527                    | 967          |
| Students.....                         | 323                      | 57            | 342                      | 105          |
| Other.....                            | 1,224                    | 462           | 1,148                    | 448          |
| <b>Totals.....</b>                    | <b>16,145</b>            | <b>11,923</b> | <b>13,911</b>            | <b>9,853</b> |

### ***Citizenship***

All persons born in Canada are Canadian citizens and cannot be deprived of their citizenship unless they themselves take definite steps to acquire another nationality. Immigrants who are naturalized in Canada become citizens and retain their citizenship so long as they remain domiciled in Canada or have authority for absence from Canada extended them and do not commit acts which result in revocation. A Canadian citizen holds also the status of a British subject.

An applicant for citizenship is required to have resided in Canada for five years. Besides showing those qualities of character that would lead him to be a hard-working law-abiding citizen, he must have an adequate knowledge of English or French and also a knowledge of Canadian history, geography, form of government, and of the duties and responsibilities of good citizenship.

The Department of Citizenship and Immigration administers the Canadian Citizenship Act, 1947, and provides leadership in the building of true citizenship among all Canadians. The Department co-operates with provincial departments of education and national, provincial and voluntary organizations in the development of citizenship programs designed to assist in the adjustment of newcomers to the Canadian way of life and to develop among established citizens an appreciation of the customs, culture and contributions of the new residents. During the year ended Mar. 31, 1951, certificates of Canadian citizenship were issued to 20,771 persons.

### ***Vital Statistics***

National statistics on births, stillbirths, marriages and deaths have been published since 1920 by the Dominion Bureau of Statistics under authority of the Statistics Act of 1918. At that time a plan was devised whereby the

Bureau of Statistics and the vital statistics authority of each province, of Yukon and of the Northwest Territories would co-operate in the production of the national figures; registration was to be carried out as previously by the provincial authorities and the legislation of each province was made to conform in essential features—one of which was compulsory registration—to a model Vital Statistics Act. Since the initiation of this collaborative national system, material progress has been made in modifying and improving registration techniques and procedures through continued close liaison of the provincial and federal vital statistics offices, through Dominion-Provincial Conferences and, in recent years, through a Vital Statistics Council. The Council, established in 1944, is made up of a representative from each provincial vital statistics office and the federal officials concerned with vital statistics.

A development of paramount interest was the adoption by Canada, effective Jan. 1, 1950, of the 6th Revision of the International List of Diseases, Injuries and Causes of Death, which was recommended for international adoption by the Decennial Revision Conference held at Paris in 1948 and approved by the World Health Assembly at Geneva. This Conference marked the beginning of a new era in international vital and health statistics in which Canada will take an active part. Its major recommendations included: (1) establishment under the World Health Assembly of an Expert Committee on Health Statistics for the study of problems in vital and health statistics; (2) establishment, by participating countries, of national committees to co-ordinate the vital and health statistical activities within each country and to serve as links between the national medical institutions and the Expert Committee of the World Health Organization; (3) decentralization, for study, of certain statistical problems to interested national committees.

A national committee was accordingly established in Canada, which now fulfils the dual function of a national committee and an advisory committee to the Dominion Statistician in matters related to vital and health statistics. Canada has been assigned certain statistical problems for study and research and is actively collaborating with the various committees and working groups of the World Health Organization.

**Births.**—There have been several clear-cut cycles in the number of births recorded in Canada. From 1926 to 1930 there was a gradual upward trend from 232,750 to 243,495. This movement was reversed during the depression period until 1937 when the number reached its lowest point at 220,235. Since then the trend has again been upward. From 1926 to 1930, Canada's birth rate was about 24 births per 1,000 population, dropping to 20 in 1937. The influence of the War was reflected in a sharp increase from 21.5 in 1940 to 28.6 in 1947. There was a drop to 27.0 in 1948, a slight increase to 27.1 in 1949 and then a further drop to 26.8 in 1950.

Wherever birth statistics have been collected, they have shown an excess of male over female births. No conclusive explanation of this excess has yet been given. Nevertheless it is so much of an accepted statistical fact that an accurate ratio of male to female births has become one of the criteria of complete registration. The numbers of males to every 1,000 females born in Canada in 1941-46 varied between 1,057 and 1,067 and were 1,053 and 1,060 in 1948 and 1949, respectively.



*The Aberhart Sanatorium, nearing completion at Edmonton, is an Alberta Government institution. It has accommodation for 250 tubercular patients of all ages and degrees of disability and is so designed that every patient's room faces south and receives the maximum amount of sun and fresh air. The sanatorium is situated on the University of Alberta campus, south of the nurses' residence of the University hospital.*

Hospitalization and medical attendance at birth have increased greatly in recent years. In 1926-30 only 22 p.c. of live births occurred in hospital or other institutions, while in 1949 the proportion was 74 p.c. In some provinces, particularly where either free or prepaid medical care service is provided, the proportions of hospitalized births were much higher, running to 97 p.c. in one province and to between 89 and 96 p.c. in four others.

**Deaths.**—The annual death rate in Canada averages less than 10 per 1,000 population, which is fairly low in comparison with other countries, and set a record low of 8.9 in 1950. The age composition of the population at any point in time has a very great effect on the death rate. This accounts in the main for variations in crude rates among provinces from 8.5 to 12.5 for males and 6.5 to over 10 for females. Similarly, rates for rural and urban areas or among districts, even within a province, may vary widely. On the whole, death rates are about 20 p.c. higher for males than for females.

During the past 20 years, the average age at death has risen from about 45 to 55 for males and 57 for females. If deaths of children under one year are excluded, the average age at death is now about 62 for males and 63 for females. Life expectancy at birth has accordingly risen from 60 for males and 62 for females to 65 and 69, respectively.

Of some 124,000 deaths in 1950, arteriosclerotic and degenerative heart disease, which is associated with ageing, accounted for 30,500. Other forms of heart disease accounted for an additional 8,000 deaths. Some 16,500 persons





The electron microscope is the last word in scientific equipment. The image projected on the fluorescent screen may be magnified up to 60,000 times and then photographically enlarged to 150,000 times the size of the original sample. One of the few electron microscopes in existence has been installed in the industrial health laboratory of the Department of National Health and Welfare.

died from cancer, 3,600 from tuberculosis, 12,500 from cerebral hæmorrhages and other vascular lesions, 4,600 from pneumonia and 3,300 from nephritis, while almost 10,000 died from conditions associated with birth or early infancy. Almost 2,300 died from motor-vehicle accidents and over 5,000 from other accidents. Over 1,000 persons committed suicide.

Deaths of mothers due to childbirth have shown marked reduction in the past two decades and particularly since 1940. During the period 1926-30 an average of 57 mothers died for every 10,000 children born alive; in 1940 the rate was 40 and by 1950 it had dropped to 11.

During recent years, the death rate for children under one year of age has shown substantial reduction, falling from 102 per 1,000 live births in 1926 to 60 in 1941 and 41 in 1950.

### *Infant Deaths and Death Rates, by Provinces, 1926 and 1946-50*

(Exclusive of Yukon and the Northwest Territories)

| Province   | Infant Deaths under One Year |        |        |        |        |                   | Rates per 1,000 Live Births |      |      |      |      |                   |
|------------|------------------------------|--------|--------|--------|--------|-------------------|-----------------------------|------|------|------|------|-------------------|
|            | 1926                         | 1946   | 1947   | 1948   | 1949   | 1950 <sup>p</sup> | 1926                        | 1946 | 1947 | 1948 | 1949 | 1950 <sup>p</sup> |
| Nfld.....  | ...                          | ...    | ...    | ...    | 651    | 732               | ...                         | ...  | ...  | ...  | 53   | 58                |
| P.E.I..... | 123                          | 97     | 135    | 97     | 135    | 106               | 70                          | 35   | 45   | 34   | 48   | 37                |
| N.S.....   | 882                          | 822    | 840    | 695    | 750    | 691               | 80                          | 46   | 44   | 39   | 42   | 40                |
| N.B.....   | 1,095                        | 1,066  | 1,041  | 1,047  | 993    | 930               | 106                         | 66   | 59   | 61   | 60   | 57                |
| Que.....   | 11,666                       | 6,110  | 6,583  | 6,211  | 6,031  | 6,101             | 142                         | 55   | 57   | 54   | 52   | 51                |
| Ont.....   | 5,302                        | 3,653  | 3,914  | 3,684  | 3,974  | 3,746             | 78                          | 37   | 36   | 35   | 37   | 34                |
| Man.....   | 1,122                        | 885    | 931    | 765    | 794    | 671               | 77                          | 47   | 46   | 41   | 41   | 35                |
| Sask.....  | 1,681                        | 1,004  | 1,018  | 867    | 834    | 692               | 81                          | 47   | 44   | 40   | 39   | 32                |
| Alta.....  | 1,233                        | 945    | 915    | 930    | 823    | 815               | 85                          | 43   | 37   | 39   | 33   | 32                |
| B.C.....   | 588                          | 852    | 959    | 868    | 858    | 805               | 58                          | 38   | 36   | 33   | 31   | 30                |
| Canada...  | 23,692                       | 15,434 | 16,336 | 15,164 | 15,843 | 15,289            | 102                         | 47   | 45   | 44   | 43   | 41                |

**Natural Increase.**—The rate of natural increase in population represents the difference between the birth and death rates and is similarly expressed in

terms of 1,000 population. In 1926 the natural increase rate amounted to 13.3 but, with the rapidly declining birth rates of the depression period coupled with slower declining death rates, the natural increase rate declined to 9.7 in 1937. During the War and immediate post-war years, the natural increase rate rose proportionally with the increased births to 12.2 in 1941, 13.9 in 1943 and 19.2 in 1947. A decline in the birth rate together with a slight decline in the death rate, resulted in a natural increase rate of 17.9 in 1950.

**Marriages.**—In 1929 marriages in Canada numbered 77,288 having shown a steady increase from 66,658 in 1926. The depression exercised a marked influence on marriages, causing a steep downward movement until 1932, when the number of marriages was 62,531. From 1933 to 1942 a fairly steady increase took place. The following table shows that the peak was reached in 1946.

### *Births, Marriages and Deaths, 1926-50*

(Exclusive of Yukon and the Northwest Territories)

| Year                     | Births  |                   | Marriages |                   | Deaths  |                   | Maternal Deaths |                   |
|--------------------------|---------|-------------------|-----------|-------------------|---------|-------------------|-----------------|-------------------|
|                          | No.     | Rate <sup>1</sup> | No.       | Rate <sup>1</sup> | No.     | Rate <sup>1</sup> | No.             | Rate <sup>2</sup> |
| Av. 1926-30...           | 236,521 | 24.1              | 71,886    | 7.3               | 108,925 | 11.1              | 1,339           | 5.7               |
| Av. 1931-35...           | 228,352 | 21.5              | 68,594    | 6.5               | 103,602 | 9.8               | 1,153           | 5.0               |
| Av. 1936-40...           | 228,767 | 20.5              | 96,824    | 8.7               | 109,514 | 9.8               | 1,043           | 4.6               |
| 1941.....                | 255,317 | 22.2              | 121,842   | 10.6              | 114,639 | 10.0              | 901             | 3.5               |
| 1942.....                | 272,313 | 23.4              | 127,372   | 10.9              | 112,978 | 9.7               | 818             | 3.0               |
| 1943.....                | 283,580 | 24.0              | 110,937   | 9.4               | 118,635 | 10.1              | 798             | 2.8               |
| 1944.....                | 284,220 | 23.8              | 101,496   | 8.5               | 116,052 | 9.7               | 776             | 2.7               |
| 1945.....                | 288,730 | 23.9              | 108,031   | 8.9               | 113,414 | 9.4               | 660             | 2.3               |
| 1946.....                | 330,732 | 26.9              | 134,088   | 10.9              | 114,931 | 9.4               | 595             | 1.8               |
| 1947.....                | 359,094 | 28.6              | 127,311   | 10.1              | 117,725 | 9.4               | 554             | 1.5               |
| 1948.....                | 347,307 | 27.0              | 123,314   | 9.6               | 119,384 | 9.3               | 510             | 1.5               |
| 1949 <sup>3</sup> .....  | 366,139 | 27.1              | 123,877   | 9.2               | 124,047 | 9.2               | 536             | 1.5               |
| 1950 <sup>3</sup> p..... | 370,578 | 26.8              | 124,733   | 9.0               | 123,649 | 8.9               | 417             | 1.1               |

<sup>1</sup> Per 1,000 population.

<sup>2</sup> Per 1,000 live births.

<sup>3</sup> Includes Newfoundland.

### *Births, Marriages and Deaths, by Provinces, 1950<sup>3</sup>*

(Exclusive of Yukon and the Northwest Territories)

| Province    | Births  |                   | Marriages |                   | Deaths  |                   | Maternal Deaths |                   |
|-------------|---------|-------------------|-----------|-------------------|---------|-------------------|-----------------|-------------------|
|             | No.     | Rate <sup>1</sup> | No.       | Rate <sup>1</sup> | No.     | Rate <sup>1</sup> | No.             | Rate <sup>2</sup> |
| Nfld.....   | 12,589  | 35.5              | 2,514     | 7.1               | 3,058   | 8.6               | 18              | 1.4               |
| P.E.I.....  | 2,893   | 30.1              | 616       | 6.4               | 908     | 9.5               | 3               | 1.0               |
| N.S.....    | 17,267  | 26.2              | 5,065     | 7.7               | 6,079   | 9.2               | 21              | 1.2               |
| N.B.....    | 16,416  | 31.4              | 4,376     | 8.4               | 4,898   | 9.4               | 15              | 0.9               |
| Que.....    | 119,081 | 29.9              | 34,010    | 8.6               | 33,525  | 8.4               | 182             | 1.5               |
| Ont.....    | 108,741 | 24.1              | 43,719    | 9.7               | 43,895  | 9.7               | 97              | 0.9               |
| Man.....    | 19,179  | 24.1              | 7,121     | 9.0               | 6,601   | 8.3               | 14              | 0.7               |
| Sask.....   | 21,651  | 24.8              | 6,910     | 7.9               | 6,246   | 7.1               | 21              | 1.0               |
| Alta.....   | 25,646  | 28.7              | 9,290     | 10.4              | 6,857   | 7.7               | 19              | 0.7               |
| B.C.....    | 27,115  | 23.8              | 11,112    | 9.8               | 11,582  | 10.2              | 27              | 1.0               |
| Canada..... | 370,578 | 26.8              | 124,733   | 9.0               | 123,649 | 8.9               | 417             | 1.1               |

<sup>1</sup> Per 1,000 population.

<sup>2</sup> Per 1,000 live births.



*Champlain, who in 1613 made his way up the Ottawa River and was the first white man to see the beautiful setting upon which Canada's capital now stands, still watches, in effigy, over Parliament Hill.*



# The Government

CANADA is a federal state. Its system of government includes a central governing body at Ottawa, ten component provincial governments and many municipal corporations. Behind the machinery of government—the legislature, the executive or Cabinet, and the judiciary—is the “constitution” which for Canada is partly written and partly unwritten. The distribution of power between the Federal and the Provincial Governments and the jurisdiction of the courts is set down in the British North America Act, 1867, and its amendments, but the liberties of the individual, the democratic principles that hold his respect and the parliamentary procedures to which he adheres depend not upon the written constitution but upon statutory and common law and constitutional usages or conventions that have gradually become part of the Canadian citizen’s experiences and his concept of democratic life.

Generally speaking, all matters of national concern are under the jurisdiction of the Federal Government, which is authorized to make laws for the peace, order and good government of the country. The Federal Government also has unlimited powers of taxation. The provinces have control over such items as education, the administration of justice, municipal institutions, provincial prisons and reformatories, hospitals and welfare institutions and administration of public lands. The powers of municipal corporations (exercised through elected councils) are delegated to them by the provinces and are thus varied in extent.

**Federal Government.**—The Federal Government is composed of the King (represented by the Governor General), the Senate and the House of Commons. The Governor General, appointed by the King usually for a five-year term, acts only on the advice of the King’s Privy Council for Canada, a committee of which constitutes the Ministry of the day. The appointment of the Right Honourable Charles Vincent Massey, C. H., as Governor General was announced on Jan. 24, 1952: He will, when sworn in late in February, become Canada’s first native-born Governor General.

The Ministry, or Cabinet, is the policy-forming body of the Government and sponsors most of the important legislation introduced into Parliament. The Ministers are chosen by the Prime Minister from among his party following in the House of Commons or the Senate; each generally assumes charge of one of the various Departments of Government, although a Minister may hold more than one portfolio at the same time, or may be without portfolio. Members of the Cabinet as at Dec. 31, 1951, and the portfolios held by them were as follows, listed according to precedence:—

|                                                                          |                                    |
|--------------------------------------------------------------------------|------------------------------------|
| Prime Minister and President of the King's Privy Council for Canada..... | Rt. Hon. Louis Stephen St. Laurent |
| Minister of Trade and Commerce and Minister of Defence Production.....   | Rt. Hon. C. D. Howe                |
| Minister of Agriculture.....                                             | Rt. Hon. J. G. Gardiner            |
| Minister of Public Works.....                                            | Hon. Alphonse Fournier             |
| Minister of National Defence.....                                        | Hon. Brooke Claxton                |

|                                              |                             |
|----------------------------------------------|-----------------------------|
| Minister of Transport.....                   | Hon. Lionel Chevrier        |
| Minister of National Health and Welfare..    | Hon. Paul Martin            |
| Minister of Finance and Receiver General..   | Hon. D. C. Abbott           |
| Minister of National Revenue.....            | Hon. J. J. McCann           |
| Leader of the Government in the Senate...    | Hon. Wishart McL. Robertson |
| Minister of Labour.....                      | Hon. M. F. Gregg            |
| Minister of Fisheries.....                   | Hon. R. W. Mayhew           |
| Secretary of State for External Affairs..... | Hon. L. B. Pearson          |
| Minister of Justice and Attorney General...  | Hon. S. S. Garson           |
| Minister of Resources and Development...     | Hon. R. H. Winters          |
| Secretary of State of Canada.....            | Hon. F. Gordon Bradley      |
| Minister of Veterans Affairs.....            | Hon. Hugues Lapointe        |
| Postmaster General.....                      | Hon. G. Edouard Rinfret     |
| Minister of Citizenship and Immigration...   | Hon. W. E. Harris           |
| Minister of Mines and Technical Surveys..    | Hon. George Prudham         |

The Legislative Branch of Government, consisting of the Senate and the House of Commons, is responsible for the enactment of all legislation. The Senate has 102 members. Quebec and Ontario have 24 members each, Nova Scotia and New Brunswick 10 each, the four western provinces 6 each, Newfoundland 6 and Prince Edward Island 4. Membership is for life, vacancies being filled by the government of the day. The House of Commons has 262 members elected directly by the people for a maximum term of five years. The number of members assigned to each province is computed according to population and is adjusted following each decennial census. Provincial distribution at present is as follows:—

|                   |    |                  |    |                   |   |
|-------------------|----|------------------|----|-------------------|---|
| Ontario.....      | 83 | Alberta.....     | 17 | Newfoundland..... | 7 |
| Quebec.....       | 73 | Manitoba.....    | 16 | Prince Edward     |   |
| Saskatchewan....  | 20 | Nova Scotia..... | 13 | Island.....       | 4 |
| British Columbia. | 18 | New Brunswick..  | 10 | Yukon.....        | 1 |

*Manitoba's legislative building at Winnipeg is built of native Tyndal stone. Figures of heroes of bygone days adorn the tower which is surmounted by a statue of the Golden Boy, spirit of enterprise and eternal youth.*







*Her Royal Highness the Princess Elizabeth and His Royal Highness the Duke of Edinburgh chat with His Excellency Viscount Alexander of Tunis and Lady Alexander at Government House, Ottawa. Viscount Alexander's term of office as Governor General of Canada terminated on Jan. 28, 1952.*

The right to vote in federal elections is conferred on all British subjects, men and women, who have attained the age of 21 and have resided in Canada for 12 months prior to polling day.

The judicial branch of the Federal Government comprises the Supreme Court of Canada, the Exchequer Court of Canada and courts established under the Railway Act, the Bankruptcy Act and the Farmers' Creditors Arrangement Act. The Supreme Court is the final court of appeal in Canada. The Chief Justice of Canada and the puisne judges of the Supreme and Exchequer Courts are appointed by the Governor General in Council.

The Governor General receives a salary of £10,000 a year, charged against the consolidated revenue of Canada, also an annual travelling allowance of \$50,000. Members of the Senate and of the House of Commons each receive a sessional indemnity of \$4,000 and, in addition, an annual expense allowance of \$2,000. The remuneration of the Prime Minister is \$15,000 a year, a Cabinet Minister \$10,000 a year, and the Leader of the Opposition \$10,000 a year, in addition to the sessional indemnity and the expense allowance. A Cabinet Minister is also entitled to a motor-car allowance of \$2,000 a year. The salary of the Chief Justice of Canada is \$25,000 a year and the Judges of the Supreme Court of Canada each receive \$20,000 a year.



**Provincial Government.**—In the provinces, government is conducted along the same general lines as the Federal Government. The Lieutenant-Governor in each province is the representative of the Crown and is appointed by the Governor General in Council for a term of five years. The provinces, with the exception of Quebec, have one legislative body known as the Legislative Assembly, whose members are elected by popular vote. Quebec still retains a second legislative body, corresponding to the Senate, known as the Legislative Council, the members of which are appointed for life. In the provinces, the Executive Councils perform functions parallel to those of the Federal Cabinet.

The Legislature of each province makes laws in relation to the administration of justice in the province including the constitution, maintenance and organization of provincial, civil and criminal courts. The judges of the Superior, District and County Courts in each province, except those of the Courts of Probate in Nova Scotia and New Brunswick, are appointed by the Federal Government from the bars of their respective provinces. Judges' salaries and pensions are also fixed by the Federal Parliament.

**Government of the Territories.**—Yukon and the Northwest Territories, those vast northern areas with their small and scattered populations, are under the administration and protection of the Federal Government. Yukon has a local government composed of a Commissioner appointed by the Governor General in Council and a Territorial Council of three members elected for a three-year term. The Government of the Northwest Territories is vested in a Commissioner, appointed by the Governor General in Council, assisted by a Council composed of eight members one of whom is Deputy Commissioner. In the 1951 spring session of the Federal Parliament, the Northwest Territories Act was amended to give the Northwest Territories the right to elect three Councillors, five others to be appointed by the Governor General in Council. Previously the Council consisted of six members, all appointed by the Federal Government.

The first session of this partially elected eight-member Council of the Northwest Territories was held at Yellowknife, N.W.T., Dec. 10, 1951.

**Municipal Government.**—Under the British North America Act, the municipalities are the creation of the Provincial Governments and for this reason their bases of organization and their powers differ. However, most of these municipal governments, like other forms of government, have found their spheres of activity continually broadening and have developed considerable powers of local self-government. There are more than 4,000 incorporated municipalities in Canada, of which 1,650 are urban.

## ***Canada's External Relations\****

**International Status.**—From the time of its colonial beginnings in the 17th century, Canada has been closely linked—through immigration, trade, culture and political ties—to a steadily increasing number of other countries. By a gradual process, it has achieved the full control over its external relations that it had obtained earlier over domestic affairs.

\*The Department of External Affairs produces a number of publications dealing with Canada's external developments including the monthly bulletin *External Affairs* and the annual report *Canada and the United Nations*.



*The seventh session of the North Atlantic Council, senior body of the North Atlantic Treaty Organization, was held at Ottawa, Sept. 15-20, 1951. The opening session in the House of Commons was addressed by the Chairman, the Minister of Foreign Affairs for Belgium.*

Canada is an independent nation, entirely responsible for its own foreign policy. By choice, it is associated in a number of ways with other States. Of these associations, the oldest is that of the Commonwealth; that group of free States which arose from the organic growth of the British Empire. The other members are Australia, Ceylon, India, New Zealand, Pakistan, the Union of South Africa and the United Kingdom. The ties that hold them together are common ideals and common interests. They recognize the King as the symbol of their free association and, as such, the Head of the Commonwealth. All members are equal in status and practise close co-operation and consultation in matters of common concern. For this purpose they maintain a number of committees and other bodies. Among these the Commonwealth Consultative Committee on South and South-East Asia may be taken as an example. By joining in the discussions and plans of this body, Canada has once more shown awareness that its own well-being and that of the countries associated with it depend on world-wide prosperity and economic development. The Committee has recognized that Commonwealth countries of south and southeast Asia are not the only ones needing technical assistance to attain this goal, and has invited other countries to associate themselves with its work.





*Members of the Highways and Bridge Erection Mission from Pakistan, visiting Canada under the Technical Co-operation Program of the Colombo Plan, examine plans of the Mackenzie King Bridge under construction at Ottawa.*

**Collective Security and Defence.**—Support of the United Nations as an agency of collective security is a corner-stone of Canadian policy. The Canadian Navy and Air Force have been serving in the United Nations action in Korea since July 1950 and the Army since November 1950. (See also pp. 32-33.)

Canada is also a member of the North Atlantic Treaty Organization, which came into force in 1949, and has been active with other Treaty nations in building an organization for collective defence of the North Atlantic area. The senior body of the Organization, the North Atlantic Council, held its seventh session at Ottawa in September 1951. This was the first meeting of the Council since its reorganization (proposed by Canada in 1950) to bring the foreign, defence and finance ministers together into one body, recognizing the joint aim of building up defence forces to a sufficient level and the no less important objective of a sound and stable economy necessary to support that effort. Committees were established to survey urgently the requirements of fulfilling the militarily acceptable NATO plan for the defence of Europe and to study and recommend lines of action to strengthen the free institutions of the North Atlantic community and advance the well-being of their people.

Canada's contributions in fulfilling her obligations to NATO are dealt with on pp. 33-34.

**The United Nations and the Specialized Agencies.**—Canada's development towards the stature of a Middle Power is to-day shown in its added responsibilities undertaken in a world where the remotest nations are neighbours, and where shrunken distances are measured in terms of flying hours. Since signing the Charter of the United Nations at San Francisco in 1945, Canada has taken an active part in the deliberations of the United Nations. Canada is at present serving its second term (January 1950 to December 1952) as a member of the Economic and Social Council; its first term ran from



January 1946 to December 1948. From Jan. 1, 1948, to Dec. 31, 1949, Canada was a member of the Security Council, having been elected to one of the six non-permanent seats. In addition, Canada is a member of each of the thirteen specialized agencies associated with the United Nations.

**Economic Co-operation.**—The Canadian economy is growing rapidly through the development of natural resources and the creation of new manufacturing industries. The economy is, however, highly dependent on foreign markets and consequently the Canadian Government has had an active interest in the reconstruction of European countries and the re-building of international trade on a sound basis. Since the War, Canada has made available over \$2,000,000,000 in loans and relief to former allies including a loan of \$1,250,000,000 to the United Kingdom. Canada has actively co-operated in international organizations designed to promote non-discriminatory economic relations and reductions of trade barriers between nations. Canada is a member of the International Monetary Fund and the International Bank, a contracting party to the General Agreement on Tariffs and Trade, an Associate Member of the Organization for European Economic Co-operation, and a participant in the Consultative Committee for South and South-East Asia. Through this latter Committee the Government provided \$25,000,000 in 1951 to promote economic development, and \$400,000 for the associated program for technical co-operation in the area. In addition, Canada has contributed \$650,000 to the first financial period of the United Nations Expanded Programme for Technical Assistance to Under-Developed Countries.

**Diplomatic and Consular Service.**—Canadian representation in other countries, which had been slowly developing since 1880 when the first High Commissioner for Canada was sent to London, has expanded rapidly during the war and post-war years. As a result, diplomatic and consular services are now established in thirty-six countries.

At present Canada has High Commissioners in Australia, India, New Zealand, Pakistan, Union of South Africa and the United Kingdom. There are Canadian Embassies in Argentina, Belgium, Brazil, Chile, Cuba, France, Germany, Greece, Ireland, Italy, Mexico, the Netherlands, Peru, Turkey, the Union of Soviet Socialist Republics, the United States of America and Yugoslavia. Legations are located in Czechoslovakia, Denmark, Norway, Poland, Sweden and Switzerland. The Ambassador to Belgium is also accredited as Minister to Luxembourg, the Minister to Sweden as Minister to Finland, and the Minister to Norway as Minister to Iceland.

The Canadian Consular Service was first established during World War II. Consular offices are now located at New York, Chicago, San Francisco, Boston, Detroit and Portland in the United States; São Paulo, Brazil; Shanghai, China; Frankfurt, Germany; Manila, Republic of the Philippines; Lisbon, Portugal; Geneva, Switzerland; and Caracas, Venezuela.

Canada also has a Permanent Delegation to the United Nations at New York, to the European Office of the United Nations at Geneva and to the Organization for European Economic Co-operation at Paris; a military Mission is located at Berlin and a civilian Mission at Tokyo.

Fifty-six countries maintain representation in Canada.



# Health and Welfare Veterans Affairs

## • Public Health

**T**HE planning, supervision and financial responsibility for public health has been largely assumed by the provinces, though the Federal Government is playing an increasing part in the co-ordination of services and in financial assistance, and important contributions are also made by private associations and organizations. Actual administration is carried on mainly by municipal and other local authorities.

The principal co-ordinating agency between federal and provincial governments is the Dominion Council of Health, which is composed of the Deputy Minister of National Health, the chief health officer of each province and five other members. The Council is responsible for the development of an integrated and co-operative health program extending throughout the country.

## Federal Health Services

Federal participation in health matters is centred in the Department of National Health and Welfare, although important programs are administered by other departments. The Department of Veterans Affairs provides medical and hospital care for veterans, the Department of National Defence is responsible for the health of the Armed Forces, the National Research Council co-ordinates medical research and the Department of Agriculture has certain responsibilities in connection with food production.

The Federal Government, through the Department of National Health and Welfare, administers many protective measures including the exclusion of infectious diseases at seaports, the medical examination of immigrants, the care of sick mariners, the safeguarding of boundary and other waters against pollution, and the distribution of narcotics. It is also responsible for control of the quality of food, drugs and patent medicines offered for sale. Health services for Indians and Eskimos come under the jurisdiction of the Department of National Health and Welfare as well as the promotion of the health of Federal Government employees. Financial assistance is provided by the Federal Government for remedial services for blind pensioners.

Under the National Health Grant Program, funds are made available to the provinces for the extension of existing health services and facilities. The program includes grants for general public health, tuberculosis control, mental health, venereal disease control, cancer control, services for crippled children, professional training, public health research, hospital construction, and for the carrying out of health surveys. The amount made available for all grants for



the year ended Mar. 31, 1952, was \$35,300,000. Grants are also paid to many non-government agencies engaged in health work.

Federal assistance to medical research is provided through research grants, direction and control over which is exercised by the Privy Council Committee on Scientific and Industrial Research.

### *Provincial and Municipal Health Services*

Although basic local health services such as sanitation, communicable disease control and registration of births, deaths and marriages are generally the obligation of cities, municipalities, counties or other local units, Provincial Governments have gradually assumed increased financial responsibility, with correspondingly increased supervision and control. The Provincial Departments of Health generally plan and direct such health services as vital statistics, infant, child and maternal hygiene, public health laboratories, health education and public health nursing, as well as communicable disease control and public health engineering.

Diagnostic and treatment clinics are provided in various provinces for such diseases as tuberculosis, venereal diseases, cancer, poliomyelitis and mental illness. In some cases vaccines, sera and other special drugs are supplied by provincial laboratories to practising physicians as well as to public health officials. Other activities of the local and provincial health departments include dental services, school medical services, epidemiology and industrial hygiene.

Public hospitals for acute diseases receive provincial grants, supplemented in many cases by aid from municipalities and private benefactors. Most provinces operate tuberculosis sanatoria or contribute to their maintenance, but mental hospitals are usually wholly provincial institutions.

Free treatment for all illnesses is given to indigents and, in some cases to all residents for certain diseases such as tuberculosis. In Alberta a maternity hospitalization service is provided by the Province. In Saskatchewan and British Columbia there are Provincial Government prepaid hospitalization programs supported by an annual tax on each resident with a maximum payment for a family. The Newfoundland Government operates cottage

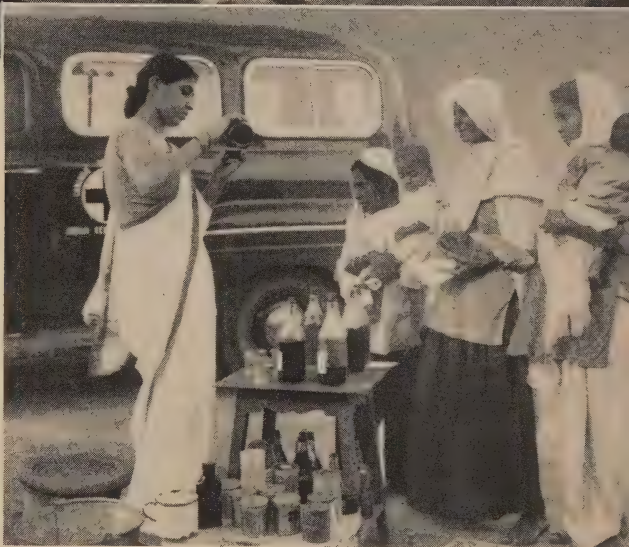


*Nutrition surveys are conducted by the Department of National Health and Welfare working in collaboration with provincial and local nutritionists. These surveys are intended to form the basis for improvement in the nutritional level of the communities in which they are taken.*

Members of the Canadian Red Cross, 97 p.c. of whom are volunteers, work tirelessly in homes, schools, church halls and clubs across the country to provide relief and comfort for the suffering in Canada and wherever they may be in the world.



Open-air baby clinic at Delhi. The station wagon was given to the Indian Red Cross by the Canadian Red Cross.

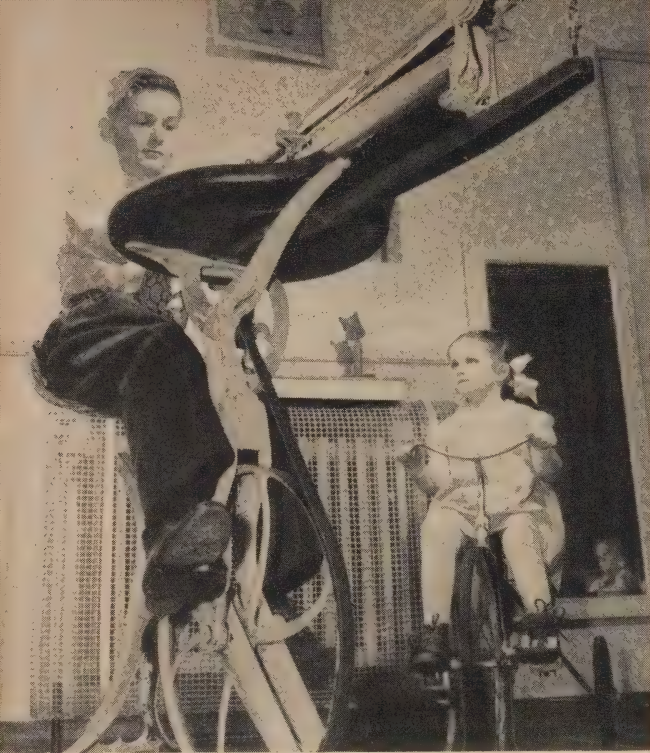


hospitals in outport areas and, in conjunction with these, medical and hospital care is provided upon payment of an annual fee. Private prepaid medical care and hospital insurance plans have been developed extensively throughout Canada.

**Non-Governmental Health Agencies**

In addition to many local and provincial health organizations, major national agencies are: the Canadian Red Cross, which has converted its wartime blood-donor service into a civilian blood bank and transfusion service; the Victorian Order of Nurses, with well-established home-nursing and maternity services; the Order of St. John, with its training and service in first aid, home-nursing and blood grouping; and the Canadian Tuberculosis





*Equipment of both therapeutic and recreational value aids the recovery of crippled children. The jig-saw helps to strengthen leg muscles and the tricycle is used for knee-flexion exercises.*

Association, whose provincial branches conduct mass X-ray surveys and educational programs. The Health League of Canada sponsors educational and publicity work in health generally and the Canadian Mental Health Association operates similarly in its field. The Department of National Health and Welfare was instrumental in forming the National Cancer Institute and the Canadian Arthritis and Rheumatism Society. These and other national health agencies have been established for purposes of education, publicity, research and other services.

### ***Statistics on Health Institutions***

The Dominion Bureau of Statistics began the collection of statistical data on health institutions in conjunction with the 1931 Census. The following year special reporting forms were introduced and since that time annual figures are available regarding type, size, ownership, cost of operation and operating revenues of institutions as well as admissions, discharges, and deaths. The reporting forms undergo constant revision in order to provide an accurate evaluation of the progressively expanding hospital facilities and services.

It is interesting to note that in those hospitals where the turnover of patients treated is relatively rapid, the daily cost of operation is proportionately higher. In public and private hospitals, for example, where treatment is provided for all types of illness, admissions are frequent, duration of treatment rendered is short, and the provision of hospital services is relatively expensive.



In tuberculosis and mental institutions, however, admissions are infrequent, the average patient remains hospitalized for six to nine months, and the cost of operation is about half the cost for public and private hospitals.

Since 1932 the number of hospitals reporting to the Bureau has increased each year and accordingly their combined bed capacities have shown a constantly upward trend. However, despite the improvement in the coverage of hospitals submitting annual reports, the ratio of beds per unit of population has varied little over the past 17 years. Admissions of adults and children per bed have doubled during that period and the average length of hospitalization required has decreased about 33 p.c. However, the decrease in the average length of hospital residence has not been sufficient to offset the increased admission rate, and therefore the percentage occupancy of beds has also been increasing over the period 1932-49.

During the period 1932-49, admissions to public general hospitals increased 185.1 p.c., to public special hospitals, 93.7 p.c., to tuberculosis institutions,

*A mobile laboratory, fitted to undertake special investigations in the public health field throughout the country in co-operation with provincial health departments.*



43.6 p.c. and to mental institutions, 63.8 p.c. The average length of hospital residence decreased 32.7 p.c. in general hospitals and 45.5 p.c. in special hospitals. A large part of the increase in admissions to public general and public special hospitals can be explained by the more complete coverage of hospitals reporting but the decrease in length of hospital residence indicates a tendency towards more rapid turnover of patients treated and, as stated earlier, a higher hospital admission rate. The average length of hospitalization for treatment in tuberculosis institutions has increased 27.1 p.c. and has remained practically unchanged in mental institutions, although the increase in the coverage of tuberculosis and mental institutions reporting to the Bureau over the period has not been very marked. It would appear that there is currently more overcrowding of facilities in tuberculosis and mental institutions than there is in public hospitals.

The daily cost of operation increased during the period 1932-49 by 70.8 p.c. in public hospitals, 61.1 p.c. in tuberculosis hospitals, and 108.9 p.c. in mental institutions.

### *Summary Hospital Statistics by Type of Institution, 1949*

(Excludes Newfoundland)

| Type                              | Hospitals Reporting | Bed Capacity   | Admissions <sup>1</sup> | Patients under Care <sup>1</sup> | Average Days Stay <sup>1</sup> | Cost per Day      |
|-----------------------------------|---------------------|----------------|-------------------------|----------------------------------|--------------------------------|-------------------|
|                                   | No.                 | No.            | No.                     | No.                              | No.                            | \$                |
| Public.....                       | 719                 | 67,419         | 1,525,544               | 1,562,857                        | 10.5                           | 7.26              |
| General.....                      | 609                 | 59,699         | 1,437,442               | 1,471,126                        | 10.1                           | 7.41 <sup>2</sup> |
| Special.....                      | 110                 | 7,720          | 88,102                  | 91,731                           | 16.8                           | 5.97              |
| Private.....                      | 194                 | 3,225          | 49,665                  | 51,565                           | 15.4                           | ..                |
| Federal.....                      | 94                  | 14,145         | 74,886                  | 83,920                           | 44.7                           | ..                |
| Tuberculosis.....                 | 93                  | 15,825         | 16,455 <sup>2</sup>     | 29,382 <sup>2</sup>              | 170.3                          | 4.64 <sup>3</sup> |
| Mental.....                       | 63                  | 43,478         | 15,304                  | 66,337                           | 281.8                          | 2.11              |
| Incurable.....                    | 21                  | 3,909          | 2,301                   | 5,988                            | 229.0                          | ..                |
| <b>Totals, All Hospitals.....</b> | <b>1,184</b>        | <b>148,001</b> | <b>1,684,155</b>        | <b>1,800,049</b>                 | <b>...</b>                     | <b>...</b>        |

<sup>1</sup> Excludes newborn.

<sup>2</sup> Includes tuberculosis units in general hospitals.

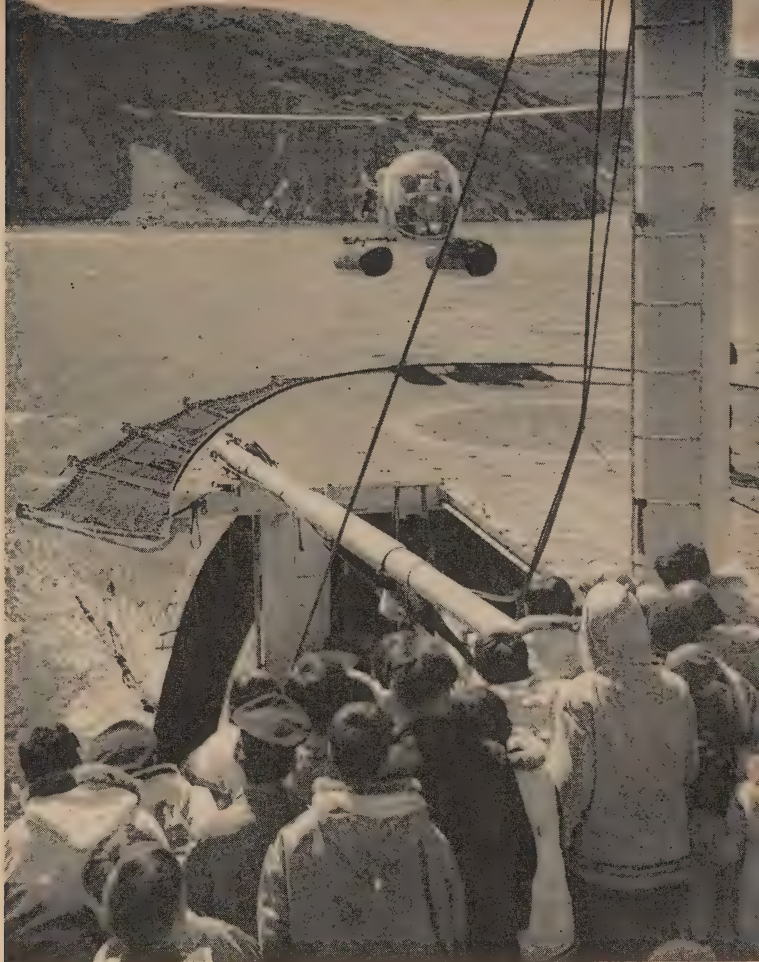
<sup>3</sup> Tuberculosis sanatoria only.

## **• Welfare and Social Security**

There has been considerable growth during recent years in the extension and co-ordination of municipal, provincial and voluntary welfare services in Canada, as well as notable progress in the development of a nation-wide social security program. Though social welfare developed as a local responsibility and the municipalities continue to carry substantial welfare burdens, the provincial governments have undertaken to provide services for special groups, financial assistance for municipal welfare programs, aid in co-ordinating local services and encouragement of improved standards of service.

Federal responsibility began with the introduction in 1927 of old age pensions and extended during the pre-war years into the fields of unemployment relief, agricultural relief, pensions for the blind and other financial aid to the provinces. A national system of contributory unemployment insurance was introduced in 1940, the national physical fitness grant program in 1943, family allowances in 1944, and a universal old age pension scheme in 1951.

*Eskimos awaiting medical check-up aboard the "C. D. Howe" show great interest in the ship's helicopter. Eastern Arctic outposts of civilization are supplied by this Government-owned ship which travels 10,000 miles annually through the northern waters to carry food, equipment and replacement personnel. Doctors and dentists usually accompany the patrol.*



On the administrative side, each province has a permanent public welfare service, either as a separate department or jointly with its department of health, to operate the majority of provincial services and exercise supervisory authority over welfare programs, both public and private.

### **Federal Welfare Services**

Most Federal Government welfare services are under the jurisdiction of the Department of National Health and Welfare, whose main functions in the field of welfare include the promotion of social security and the social welfare of the people of Canada, investigation and research, preparation and distribution of information on social and industrial conditions affecting the lives and health of the people, and co-operation with provincial authorities with a view to co-ordination of efforts in the welfare field. The Welfare Branch administers family allowances, the universal old age pensions program, federal grants to the provinces for old age assistance, allowances for blind persons and physical fitness. Certain welfare services are administered by



other government departments: allowances paid to veterans' dependants and to non-pensionable veterans are administered by the Department of Veterans Affairs (*see* p. 96); the Department of Citizenship and Immigration is responsible for the welfare of Indians (*see* p. 60); and the Department of Resources and Development co-operates in the care of indigent white and half-breed persons in the northern territories and in the payment of family allowances to Eskimos.

**Family Allowances.**—The Family Allowances Act, 1944, was introduced to provide more equal opportunity for the children of Canada. The allowances are paid monthly to parents (to mothers, except in unusual circumstances) and must be spent exclusively for the maintenance, care, training, education and advancement of the child.

In general, each child under sixteen years of age, including Indians and Eskimos, is eligible for an allowance. For registration purposes the child must reside in Canada and, in addition, must have been born and resident since birth in Canada or have lived in Canada for one year preceding registration. Residence provisions do not apply to children born to parents domiciled in Canada but who are temporarily out of the country. The allowance is not payable on behalf of a child who fails to attend school as required by the laws of the province in which he resides.

The allowances, which involve no means test and are not considered as income for tax purposes, are paid by cheque at the following monthly rates:



A Victorian Order nurse conducting a baby clinic. Such clinics, operated by various welfare agencies, are available for the care of children in most urban communities.

children under 6 years of age, \$5; children from 6-9 years of age, \$6; children from 10-12 years of age, \$7; and children from 13-15 years of age, \$8. Current disbursements under the Family Allowances Act amount to about \$317,000,000 per annum.

### *Family Allowance Statistics, by Provinces, June 1951*

| Province or Territory                | Families Receiving Allowances | Total Children   | Average Allowance per Family | Average Allowance per Child | Total Allowances Paid, June 1951 |
|--------------------------------------|-------------------------------|------------------|------------------------------|-----------------------------|----------------------------------|
|                                      | No.                           | No.              | \$                           | \$                          | \$                               |
| Newfoundland.....                    | 51,811                        | 146,323          | 16.91                        | 5.99                        | 876,137                          |
| Prince Edward Island.....            | 13,335                        | 34,425           | 15.58                        | 6.04                        | 207,790                          |
| Nova Scotia.....                     | 92,207                        | 219,402          | 14.35                        | 6.03                        | 1,323,295                        |
| New Brunswick.....                   | 72,692                        | 192,106          | 15.83                        | 5.99                        | 1,150,640                        |
| Quebec.....                          | 529,918                       | 1,418,011        | 16.06                        | 6.00                        | 8,509,445                        |
| Ontario.....                         | 633,333                       | 1,280,686        | 12.10                        | 5.98                        | 7,665,319                        |
| Manitoba.....                        | 108,853                       | 230,173          | 12.68                        | 6.00                        | 1,380,469                        |
| Saskatchewan.....                    | 118,775                       | 265,971          | 13.59                        | 6.07                        | 1,614,103                        |
| Alberta.....                         | 137,252                       | 295,697          | 12.95                        | 6.01                        | 1,777,627                        |
| British Columbia.....                | 162,010                       | 316,798          | 11.67                        | 5.97                        | 1,890,752                        |
| Northwest Territories and Yukon..... | 4,075                         | 8,964            | 13.35                        | 6.07                        | 54,386                           |
| <b>Canada.....</b>                   | <b>1,924,261</b>              | <b>4,408,556</b> | <b>13.74</b>                 | <b>6.00</b>                 | <b>26,449,963</b>                |

**Old Age Income Security Programs.**—Protection for persons in the older age groups was greatly extended commencing January 1952. The Old Age Assistance Act, passed in June 1951, provides for federal grants-in-aid to the provinces for old age assistance payments on a means test basis to persons aged 65 to 69. The Old Age Security Act, passed in December 1951, provides for a universal pension scheme for all persons 70 years of age or over. These two measures replace the former federal-provincial old age pension program under which pensions, subject to a means test, were payable at the age of 70. They are both administered by the Department of National Health and Welfare.

Under the Old Age Security Act, commencing January 1952, the Federal Government pays a pension of \$40 a month to all persons aged 70 or over, subject to a residence qualification of 20 years (or more in certain cases). This universal pension is the financial and administrative responsibility of the Federal Government and will be financed by a 2 p.c. sales tax, a 2 p.c. tax on net corporation income, and a 2 p.c. tax not to exceed \$60 a year on the net taxable income of individuals required to pay income tax. The estimated number of recipients in 1952 is 715,000 and the estimated cost about \$343,000,000.

The Old Age Assistance Act 1951 provides for federal contributions to the provinces for assistance, not exceeding \$40 a month, to persons between the ages of 65 and 69, subject to a residence qualification of at least 20 years. For a single person, total income, including the assistance, cannot exceed \$720 a year and for a married couple, \$1,200 a year. Where one of the spouses is blind, within the meaning of the Blind Persons Act, the total income of the couple, including the assistance, cannot exceed \$1,320 a year. Within the limits of the Act, each province is free to fix the amount of the maximum assistance payable, the maximum income allowed and other conditions of

eligibility, but the Federal Government's contribution cannot exceed 50 p.c. of \$40 a month or of the assistance paid whichever is less. Implementation of the program in a province is contingent on the province passing enabling legislation and signing an agreement with the Federal Government. At the end of 1951, most of the provinces had either passed legislation or had announced their intention of signing interim agreements enabling the payment of pensions from Jan. 1, 1952.

The statistics shown in the following table refer to the pensions payable under the Old Age Pensions Act 1927 which has been replaced by the new legislation.

**Summary of Old Age Pensions Payable under the Old Age Pensions Act, 1927, by Provinces, as at June 30, 1951**

| Province<br>or Territory   | Pensioners     | Average<br>Monthly<br>Pension <sup>1</sup> | Pension-<br>ers to<br>Popula-<br>tion 70<br>Years of<br>Age or<br>Over | Persons<br>70 Years<br>of Age<br>or Over<br>to Total<br>Popula-<br>tion | Federal<br>Govern-<br>ment's<br>Contribu-<br>tion since<br>1927 |
|----------------------------|----------------|--------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------|
|                            | No.            | \$                                         | p.c.                                                                   | p.c.                                                                    | \$                                                              |
| Newfoundland.....          | 11,671         | 38.00                                      | 84.57                                                                  | 3.89                                                                    | 7,048,283                                                       |
| Prince Edward Island.....  | 3,193          | 34.40                                      | 51.50                                                                  | 6.46                                                                    | 6,043,657                                                       |
| Nova Scotia.....           | 20,933         | 35.67                                      | 59.64                                                                  | 5.33                                                                    | 50,274,678                                                      |
| New Brunswick.....         | 16,749         | 36.56                                      | 71.88                                                                  | 4.46                                                                    | 38,641,427                                                      |
| Quebec.....                | 74,514         | 37.68                                      | 53.84                                                                  | 3.48                                                                    | 172,440,742                                                     |
| Ontario.....               | 91,953         | 37.72                                      | 36.77                                                                  | 5.54                                                                    | 260,954,946                                                     |
| Manitoba.....              | 17,859         | 38.24                                      | 45.79                                                                  | 4.91                                                                    | 54,383,931                                                      |
| Saskatchewan.....          | 17,737         | 37.53                                      | 44.90                                                                  | 4.52                                                                    | 52,923,137                                                      |
| Alberta.....               | 18,255         | 37.62                                      | 48.17                                                                  | 4.23                                                                    | 46,440,431                                                      |
| British Columbia.....      | 32,192         | 36.88                                      | 44.96                                                                  | 6.29                                                                    | 70,191,893                                                      |
| Northwest Territories..... | 24             | 39.51                                      | 13.11                                                                  | 1.52                                                                    | 73,278                                                          |
| Yukon.....                 | 96             | 38.79                                      | 29.27                                                                  | 6.67                                                                    | 70,098                                                          |
| <b>Canada.....</b>         | <b>305,176</b> | <b>37.41</b>                               | <b>46.60</b>                                                           | <b>4.74</b>                                                             | <b>759,486,501</b>                                              |

<sup>1</sup> Excluding supplements paid by the provinces.

**Allowances for the Blind.**—The Blind Persons Act of 1951, effective January 1952, continues the legislation relating to the payment of means-tested pensions to blind persons under the Old Age Pensions Act of 1927 as amended. The new Act provides, however, for a number of changes in the program. The pension is to be called an allowance and the residence requirement is reduced from 20 to 10 years. The eligible age remains at 21 years or over and the maximum allowance continues to be \$40 a month. The maximum yearly income limits, including the allowance, have been increased as follows: for a single person, \$840; for a single person with one or more dependent children, \$1,040; for a married couple one of whom is blind \$1,320; for a married couple both of whom are blind, \$1,440. Within the limits of the Act, each province is free to fix the amount of maximum allowance payable and maximum income allowed, but the Federal Government will not contribute more than 75 p.c. of \$40 per month or of the allowance whichever is less. The program will be administered by the provinces with appropriate reimbursement by the Federal Government. In any province, implementation of the program is contingent on the signing of an agreement between the provincial and federal governments.



**Summary of Pensions for Blind Persons Payable under the Old Age  
Pensions Act, 1927, by Provinces, as at June 30, 1951**

| Province or Territory      | Pension-<br>ers | Average<br>Monthly<br>Pension <sup>1</sup> | Pension-<br>ers to<br>Total<br>Popula-<br>tion | Federal<br>Govern-<br>ment's<br>Contribu-<br>tion since<br>1937 |
|----------------------------|-----------------|--------------------------------------------|------------------------------------------------|-----------------------------------------------------------------|
|                            | No.             | \$                                         | p.c.                                           | \$                                                              |
| Newfoundland.....          | 358             | 38.99                                      | 0.101                                          | 171,085                                                         |
| Prince Edward Island.....  | 125             | 38.03                                      | 0.130                                          | 311,353                                                         |
| Nova Scotia.....           | 1,030           | 38.39                                      | 0.157                                          | 2,193,784                                                       |
| New Brunswick.....         | 1,076           | 39.02                                      | 0.206                                          | 2,519,972                                                       |
| Quebec.....                | 3,993           | 39.08                                      | 0.100                                          | 8,691,627                                                       |
| Ontario.....               | 2,419           | 38.72                                      | 0.054                                          | 5,409,238                                                       |
| Manitoba.....              | 578             | 39.38                                      | 0.073                                          | 1,250,609                                                       |
| Saskatchewan.....          | 497             | 38.94                                      | 0.057                                          | 1,151,320                                                       |
| Alberta.....               | 495             | 38.62                                      | 0.055                                          | 927,175                                                         |
| British Columbia.....      | 668             | 38.07                                      | 0.059                                          | 1,288,955                                                       |
| Northwest Territories..... | 1               | 40.00                                      | 0.008                                          | 2,330                                                           |
| Yukon.....                 | 2               | 40.00                                      | 0.041                                          | 1,140                                                           |
| <b>Canada.....</b>         | <b>11,242</b>   | <b>38.85</b>                               | <b>0.081</b>                                   | <b>23,918,588</b>                                               |

<sup>1</sup> Excluding supplements paid by the provinces.

**Unemployment Insurance.**—A national system of unemployment insurance, administered by the Unemployment Insurance Commission, has been in operation since 1941. This service is dealt with on pp. 234-236.

**Physical Fitness.**—A program of fitness and recreation for Canada was introduced with the proclamation, on Oct. 1, 1943, of the National Physical Fitness Act. The National Council, established under the Act as an executive body, has sponsored and initiated a number of projects. Scholarships are awarded annually to give material assistance to professionally qualified Canadians with three years' successful experience who desire to improve their professional services. The Council has convened a number of national conferences such as the National Sports Governing Bodies and Professional Schools granting undergraduate degrees in physical education and recreation; the National Aquatic Standards were developed out of such a conference. A National Achievement Award has been initiated to honour those who have made outstanding contributions in their field of endeavour. The First National Survey of Municipal Recreation was carried out by the Council in 1950 on a sampling basis with the assistance and co-operation of the Federation of Mayors and Municipalities and the Parks and Recreation Association. The Council operates a Preview Visual-Aids Library Service.

The Act is administered by the Department of National Health and Welfare whose Physical Fitness Division acts as a clearing-house among the provinces for the latest information on fitness, recreation, community centres, physical education, athletics, sports and games, theatre arts and related activities. The Division also acts as a liaison office with national associations and organizations in other countries.

The Federal Government makes available to the provinces on a per capita basis an amount not exceeding \$232,000 annually for the promotion of physical fitness and recreational programs. Financial assistance is given only



*Day camps, providing outings for children who must remain in the city during the summer heat, are sponsored by civic, community and private welfare agencies of Toronto. Volunteer high-school students act as supervisors.*

to those provinces that have signed agreements with the Federal Government and to the extent to which they match them dollar for dollar up to the maximum available.

| <i>Province</i> | <i>Annual<br/>Grant<br/>Available</i> | <i>Expiry<br/>Date of<br/>Agreement</i> | <i>Province<br/>or<br/>Territory</i> | <i>Annual<br/>Grant<br/>Available</i> | <i>Expiry<br/>Date of<br/>Agreement</i> |
|-----------------|---------------------------------------|-----------------------------------------|--------------------------------------|---------------------------------------|-----------------------------------------|
|                 | <i>\$</i>                             |                                         |                                      | <i>\$</i>                             |                                         |
| Nfld.....       | 7,000 <sup>1</sup>                    | No agreement                            | Man.....                             | 14,270                                | Mar. 31, 1952                           |
| P.E.I.....      | 1,859                                 | Mar. 31, 1952                           | Sask.....                            | 17,521                                | Dec. 31, 1953                           |
| N.S.....        | 11,302                                | Mar. 31, 1952                           | Alta.....                            | 15,568                                | Dec. 31, 1952                           |
| N.B.....        | 8,944                                 | Mar. 31, 1952                           | B.C.....                             | 15,993                                | Mar. 31, 1952                           |
| Que.....        | 65,151                                | No agreement                            | N.W.T.....                           | 234                                   | Mar. 31, 1952                           |
| Ont.....        | 74,063                                | Mar. 31, 1952                           | Yukon.....                           | 97                                    | No agreement                            |

<sup>1</sup> Approximate.

## **Provincial Welfare Services**

Provincial governments administer mothers' allowances, certain welfare services in unorganized areas, training schools and reform institutions and, in co-operation with the Federal Government, provide old age assistance and allowances for the blind (*see* pp. 89-91); some provinces also have special medical care programs for needy persons. Provincial departments of welfare are also taking increasing responsibility for the co-ordination and supervision of welfare services which in many areas are provided at the municipal and voluntary levels, as, for example, social assistance or relief, child and family



welfare services, and institutional care for children, aged and needy persons. While financial arrangements vary, most provinces share in municipal welfare expenditures and some give grants to such voluntary organizations as children's aid societies.

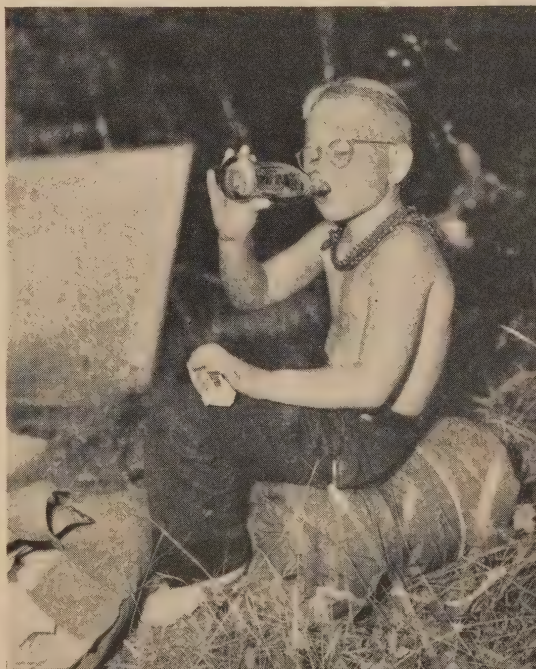
**Mothers' Allowances.**—All provinces enacted legislation between 1916 and 1949 providing allowances to certain categories of needy mothers with dependent children under the age of 16 years. When the child is physically or mentally incapacitated, or attending school, the age limit may be extended in some provinces. "Needy mothers" include widows, foster mothers and wives whose husbands are mentally incapacitated. In some provinces they include also deserted, divorced, legally separated and unmarried mothers and, in most provinces, those whose husbands are physically incapacitated.

Eligibility requirements vary by province and include a means test, one to five years' residence, Canadian or British citizenship (in six instances) and, in some cases, the mother must be of good moral character. Total costs of the program are paid from provincial treasury funds, except in Alberta where 20 p.c. of the allowance is charged to the municipality of residence.

The maximum allowance for a mother and one child varies from \$25 a month in Newfoundland and Prince Edward Island to \$60 a month in British Columbia, although the actual amount paid depends on the circumstances of the individual applicant. An additional amount is paid for each subsequent child and, in most provinces, for a disabled father living at home. In provinces which have set a maximum allowance for a family, this varies from \$50 in Newfoundland and Prince Edward Island to \$137 in Manitoba. Where special need is apparent, supplementary allowances are usually available.

**Workmen's Compensation.**—For accidents occurring in the course of employment, compensation is payable to workers or, in fatal cases, to their dependants in accordance with the law of each province. The cost of compensation and medical aid is borne by employers through a collective liability scheme administered by the province.

Monthly pensions at a fixed rate are paid to widows and children. Injured workmen receive two-thirds of their earnings (three-quarters in Ontario and Saskatchewan) during total disablement. In determining compensation benefits, the maximum amount of annual earnings taken into account is \$2,500 in Prince Edward Island, Nova Scotia, Quebec, Alberta and British Columbia, \$3,000 in Newfoundland, New Brunswick, Manitoba and Saskatchewan, and \$4,000 in Ontario.





## **Other Welfare Services**

Many voluntary organizations are in existence whose efforts are directed to social welfare. The Canadian Welfare Council, a national association of public and private agencies, provides a means of co-operative planning and action by serving as a link between voluntary agencies and between public and voluntary agencies. Specialized organizations, such as the Canadian National Institute for the Blind, which functions in every field of welfare for the blind, and the Canadian Council of the Blind, occupy somewhat similar roles in their particular fields. In areas where they have been set up, welfare councils co-ordinate and encourage local activities and community chests centralize financial campaigns. The work of the Young Men's Christian Association, the Young Women's Christian Association, the Catholic Youth Organization and the Young Men's Hebrew Association, the Boy Scouts, Girl Guides and similar youth organizations in what may be described as preventive rather than curative services cannot be overlooked. Most of the activities of these organizations are not susceptible to statistical measurement. The Canadian Red Cross Society, the Victorian Order of Nurses, and the Order of St. John also perform many welfare services, though they are more properly designated as public health organizations.

## **• Veterans Affairs**

The extensive legislation now administered by the Department of Veterans Affairs has been gradually developed since 1916, when a pressing need for adequate compensation to war veterans or their dependants inspired Parliament to deal systematically by committee with a task for which there was no precedent. Pensions, treatment, training and post-war care for those of the half-million veterans in need of them were considered. Precedents accumulated and became law. In 1918 a special government department, later to be affiliated with the Department of National Health, was set up to administer the legislation. The administrative experience gained in this Department and the deliberations of Parliament, whose special veterans' committees had investigated and recommended important measures since 1916, culminated in recent years in the Veterans Charter.

**The Veterans Charter.**—In 1944 the Department of Veterans Affairs was constituted by Act of Parliament to administer the Charter which, covering no less than fourteen Acts affecting veterans, is in reality an immense social and economic experiment while at the same time fulfilling the obligations nationally assumed to the bereaved, the casualties and their dependants. Fifty thousand veterans received university training after discharge with allowances and free medical treatment; over 80,000 received assistance in vocational training with similar allowances and treatment; 53,000 benefited under the Veterans Land Act; out-of-work allowances were paid to 172,000 veterans and awaiting returns allowances to 62,000 veterans in business—this in addition to gratuities, re-establishment credits and clothing allowances provided and free medical treatment for one year after discharge.

The Charter enabled 1,000,000 ex-service men and women to be re-established in civilian life without disturbing the national economy. For this, the Department of Veterans Affairs had the co-operation of 700 citizens'

committees scattered throughout Canada whose members gave voluntary assistance in rehabilitating veterans locally.

The organization of the Department is based on a regional administration which co-ordinates the work of 18 Districts in Canada.

**Treatment Services.**—A heavy burden was placed upon the Treatment Services Branch in 1945. Medical and dental treatment were provided to 1,000,000 veterans after discharge. The policy of giving veterans the most modern treatment possible involved close association with the universities and placing D.V.A. hospitals in the category of teaching hospitals. This policy has attracted the best medical brains in the country and part-time specialists are employed and interns trained. Clinical investigation has been developed to a high degree and an intensive program of medical research is being conducted which will be of international value.



*Patients from Camp Hill Veterans Hospital at Halifax, enjoying a baseball game from a special stand.*



*Paraplegics from Sunnybrook Hospital, Toronto, leaving the airport on a fishing trip to Algonquin Park.*

Twenty-seven institutions across Canada are administered by the Department, ranging from active treatment institutions to health and occupational centres and veterans' homes. Ten thousand patients can be accommodated in these institutions and, while the majority are entitled to treatment, it is possible for veterans without eligibility to receive hospital care on a prepayment basis. Many veterans prefer to be treated, at their own expense or under an authorized medical prepaid plan, in a D.V.A. hospital where they can fraternize with other veterans. An important function of the Treatment Services Branch is the domiciliary care of veterans requiring shelter, food and surveillance, those physically handicapped, senile and mentally confused, and the bedfast.

**Welfare Services.**—Until 1948, veterans welfare services chiefly concerned rehabilitation proper and the administration of benefits such as training, out-of-work and awaiting-returns allowances and re-establishment credit. Rehabilitation measures had assisted the process of the ex-service man's transition from a position of dependence to one of independence, but problem cases and welfare of the older veteran remained. It was found that continuous consulting, guidance and assistance were needed for veterans who could not make a successful adjustment without additional help. A more individual approach to personal and social problems was required, involving a study of the veteran's circumstances in relation to environment, and close co-operation with existing community agencies and civilian welfare services. Therefore, welfare officers were appointed to deal personally with such problems and those of pensioners, orphans, recipients of war veterans allowances and other wards of the Department receiving financial aid.

A special section of the Welfare Services Branch attends to training, placement and replacement of disabled veterans and administers the Assistance Fund (War Veterans Allowance).

**Business and Professional Loans.**—The Business and Professional Loans Act, passed in 1945, is intended to assist veterans to set up small businesses. The method of operation calls for a government guarantee to any chartered bank granting a loan to a veteran. The veteran is expected to establish to the satisfaction of the bank the soundness of his proposed venture and the adequacy of his experience to make it a success.

**War Veterans Allowance.**—Special provision for veterans prematurely aged from stress of war was made by the War Veterans Allowance Act passed in 1930. This legislation provides set allowances for married and single veterans which have proved invaluable in assisting unemployables suffering from disabilities of an intangible character. In all, 117,000 cases have been dealt with by the five-member Board which administers the Act and 65,000 cases approved. At the end of 1951, 39,000 veterans were in receipt of the Allowance and the cost to the country since its inception in 1930 amounted to \$144,000,000. In 1950, the administration was decentralized to the Departmental Districts and cases are now dealt with under the supervision of the District Superintendent of Welfare Services.

**Land Settlement.**—The Veterans' Land Act represents a public investment of \$250,000,000 in 51,000 properties on which veterans of World War II are



settled. Half of these are full-time farms. The Soldier Settlement Act, which applies to veterans of World War I, is also administered by the Veterans' Land Act Administration.

An intensive program of farm practice is conducted by trained agriculturists and horticulturists who advise the settlers in the field on improved techniques. This practical form of help is effective in instilling confidence and averting failures. Veterans are encouraged to build their own homes. Over 75 p.c. of the 2,200 houses constructed under the home-building program in 1951 were built by the veterans themselves. Re-establishment credits have proved an incentive to home-owning. Credits amounting to \$33,000,000 were used for the purchase of homes and \$160,000,000 for the purchase of furniture and household goods.

**War Disability Pensions.**—The Canadian Pension Commission is the body responsible for the adjudication and award of all compensation for disability or death incurred on or attributable to war service. In addition, it is responsible for dealing with claims for disability or death arising out of service in peacetime. A pensioner receives additional pension on behalf of his wife and children and a pensioned widow also receives pension for her children. By the 1951 amendments to the Pension Act, the award for a pensioned widow's children is paid at "orphan rates", which are double ordinary rates.

To use an illustration, the pension paid for a total disability to a former member of the Forces with a wife and two or more children amounts to: a personal pension of \$125 monthly, an additional \$45 for his wife, \$20 for the first child, \$15 for the second, and \$12 for each additional child. If he is helpless and in need of attendance, he is granted a Helplessness Allowance, which might vary from a minimum of \$480 to a maximum of \$1,400 per annum depending on the amount of attendance required. In the case of the blind, where the attendance required is not constant, the helplessness award is \$960 per annum.

A pensioned widow receives \$100 per month, with \$40 for the first child, \$30 for the second and \$24 for each additional child. If she remarries, she is granted a gratuity of twelve months' pension, and pension continues for her children at ordinary rates. Pension for a boy expires when he reaches the age of 16, and for a girl at 17. However, it may be continued to the age of 21 if the child is making satisfactory progress in a course of education approved by the Commission. The Pension Commission now issues about 200,000 cheques each month and the annual pension bill will soon reach \$125,000,000.

The Commission also administers the Civilian War Pensions and Allowances Act, which makes provision for merchant seamen, auxiliary services personnel, the Corps of Canadian Firefighters, special constables with the Royal Canadian Mounted Police, overseas welfare workers and members of other groups that contributed to Canada's effort in the second world war.

**Veterans Bureau.**—The Veterans' Bureau, established in 1930, is composed of advocates whose sole task is to assist the applicant for war disability pension and present his claims to the Canadian Pension Commission. The service is free of charge and most applications for pension are handled in this way.



Audio-visual education is probably the most dynamic movement in the elementary and secondary school world to-day. The widespread use of such teaching aids as photographs, models, exhibits, slides, moving pictures, records and radio programs is giving Canada's youth better training in their classroom subjects and a greater understanding of the complicated world around them.

# Education

## Scientific Research

### • Education

**P**UBLIC education in Canada, except for that of the native Indians, is under the jurisdiction of the provinces. While each provincial system varies from the others in particulars, the general plan is the same for all except Quebec where there are two systems, the Roman Catholic which has developed in the French tradition, and the Protestant which is of the English tradition of the other provinces. The public school systems of Ontario, Saskatchewan and Alberta include separate schools, mostly Roman Catholic. In Newfoundland the schools are denominational—Anglican, Roman Catholic, United Church, Salvation Army and Seventh Day Adventist, with a few non-denominational.

In each province, except Quebec, education is administered by a separate department of government headed by a Minister of Education who, as a member of the Ministry, is responsible to the Legislative Assembly and to the people. In Quebec education comes under the jurisdiction of the Provincial Secretary. The Minister, through his department, is responsible for the administration and enforcement of all statutes and regulations concerned with the schools, including training and licensing of teachers, provision of courses of study, authorization of textbooks, enforcement of attendance laws and the apportionment of provincial grants to schools. Local administration is in the hands of school boards elected by the ratepayers or, in some cases, appointed by the local municipal council. The local boards hire the teachers and operate the elementary and secondary schools.

Practically all the necessary funds for elementary and secondary education come from direct local taxation on real estate and from provincial grants. The Federal Government, through the provinces, contributes towards the cost of scholarship, research, youth-training and vocational education including apprenticeship and technical training.

The provincial governments operate schools for the blind and the deaf, 'normal' schools for the training of teachers and such special schools as schools of art and schools of agriculture.

**Elementary and Secondary Education.**—In the systems of the English tradition the elementary school includes the first eight grades. Children commonly begin at age six or seven and complete the elementary grades at ages 13 to 15. Subjects of study include reading, arithmetic, writing, social studies and health, together with arts and crafts, home economics, music, etc.

The secondary school course extends over four years, from grades IX to XII (five years to grade XIII in British Columbia and Ontario). High-school graduation or junior matriculation is at the end of grade XI or XII.



Grade XII (or XIII) is equivalent to first year university, but standing in at least some subjects of this grade is required for entrance to some universities. In some provinces grades VII to IX are designated intermediate or junior high and given a broadened curriculum.

A pupil entering secondary school may follow an academic course—usually composed of literature, history, mathematics, science and a foreign language—leading to the university, the normal school or nurses' training school, or he may take an industrial, commercial or agricultural course leading to a relative occupation.

Under the Roman Catholic system of Quebec seven grades comprise the primary division. Thereafter a boy may enter a classical college for an eight-year course leading to university, or pass through any one of five sections of the complementary and superior divisions—general, scientific, industrial, commercial, agricultural. The first three are five-year courses, the others shorter. The scientific and commercial courses lead to the professional schools and the general courses to the normal schools; the other courses are terminal.

At the end of the primary division a girl has the choice of four sections: (1) a general five-year course leading to normal school; (2) a three-year household science course; (3) a four-year commercial course; or (4) a two-year domestic arts course; or she may enter a classical college leading to university.

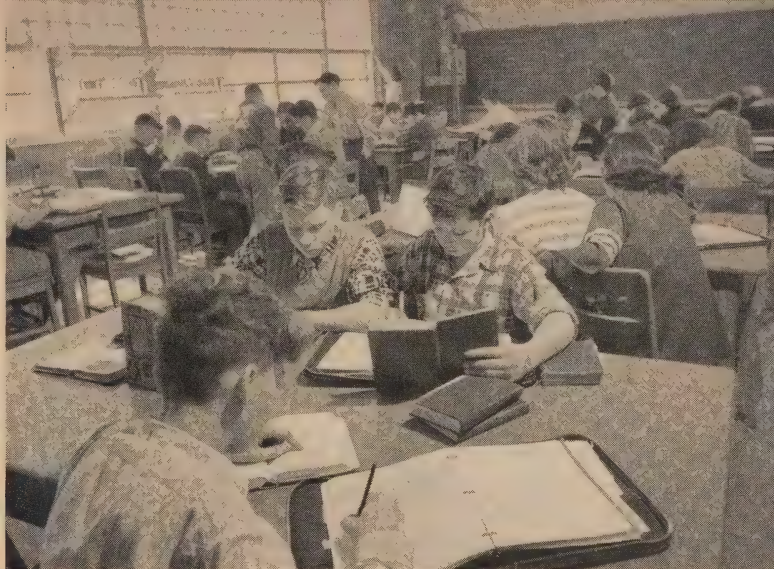
**Education Surveys.**—Within the past few years a considerable number of important studies have been made of Canadian education. A few of these were local but most were national in scope and covered, among other topics, physical and mental health, absenteeism, curricula, history texts, administration, finance, the status of the teaching profession and the educational system.

Reports have recently become available on three notable studies. The *Report of the Royal Commission on National Development in the Arts, Letters*



*Design students examine model homes planned and built by their colleagues.*

Study period in the library of a modern high school. Folding door at the far end of the window wall closes out light when the room is used for film projection.



and Sciences, while not primarily a report on formal education, nevertheless has a good deal to say on university and adult education.

The *Report of the Royal Commission on Education in Ontario* is the result of five years of intensive study. It covers the entire field of formal education in that Province touching on such topics as the aims of education, the constructing of curricula and courses of study, social, spiritual and other aspects of education, administration, supervision and finance and adult education and recreation.

In 1947, the Canadian Research Committee on Practical Education, representing education, industry, commerce, agriculture, labour and the home, began a survey dealing with that large body of high-school students who will not enter the institutions of higher education and many of whom will not stay to complete the high-school course. The Committee's first report, published in 1949, gives an outline of the organization of secondary education in each province, particularly as to the provisions and facilities for vocational education. Statistics showed a large number of pupils leave school without entering high school, many before completing the elementary level, and another large group in the early high-school years. A second report *Your Child Leaves School*, published in 1950, presents the results of a survey of over 26,000 children who withdrew from school from Grade VII and higher grades in 1948. They showed that 59 p.c. of the boys and 51 p.c. of the girls in Grade VII drop out before graduation from high school, that 85 p.c. of slow learners drop out, also 50 p.c. of pupils of average ability who could graduate, and 5 p.c. of superior learners. The survey also proved that drop-outs find it more difficult than graduates to secure employment, the variety of available jobs is limited, starting salaries are lower and opportunities for advancement fewer. Most graduates secure jobs related to their training. By questioning these same ex-pupils and their employers two years later it was possible to learn something of how these young people were getting on and, to a certain degree,

assess how well the education they had received had prepared them for living and making a living. The results of this follow-up study were published in 1951 under the title, *Two Years After School*. The final report, *Better Schooling for Canadian Youth*, summarizes the conclusions of the study and makes recommendations for the improvement of secondary education in Canada, particularly vocational education. In brief they are as follows: raise the legal school-leaving age to 16; impress upon pupils, parents and the community the advantages of better education; provide educational programs conducive to retaining pupils to the end of the secondary school grades and at the first sign of difficulty, take prompt action to prevent retardation; to permit of exploration, secondary schools should offer a variety of courses, all with a common core of basic subjects, and admit of ready transfer between courses; every high school should provide courses in home economics, business and industrial arts, and in rural schools, agriculture also; all secondary schools should provide guidance service and take a definite interest in the guidance and job-placement of both drop-outs and graduates, and should follow ex-pupils to help them through the adjustment period; the schools should emphasize oral and written expression and the fundamentals of arithmetic; specific training for particular occupations should be delayed as long as possible and basic skills developed so that pupils are adaptable to new situations; insistence on thoroughness and high standards of performance. Students should be taught that education is a continuing process and, with this in mind, the Report suggests the establishment of local community institutes to provide part-time education for 16 to 18 year-olds, and facilities for the education, training and recreation of adults.

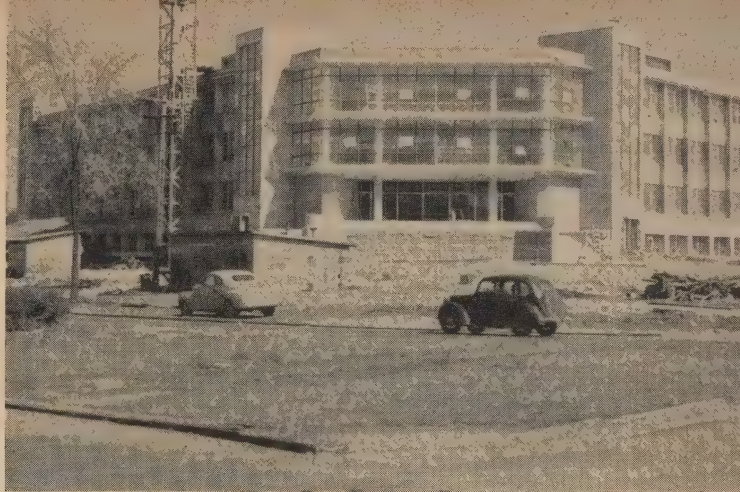
**Indian Education.**—The Indian Affairs Branch of the Department of Citizenship and Immigration operates day and residential schools for Indians throughout Canada. There are, in all, 435 schools of which 67 are residential and 29 seasonal. The remainder are regular day schools, several of which serve both white and Indian children. The enrolment in these schools for the academic year 1950-51 was 24,871. In addition, 1,952 Indian children were enrolled in provincial and private schools, 11 in universities, 3 in normal schools, 11 in nurse-training schools and 55 in commercial, trade and other schools.

Increasing enrolment in Indian schools, which has risen steadily from 16,438 in 1944-45, and higher percentage attendance, which advanced from 80 p.c. in 1944-45 to 90 p.c. in 1950-51, indicates the greater realization among the Indians themselves of the importance of education and the added factors of better teachers, schools and equipment. The day-school construction program under way for the past few years is providing educational facilities for Indian children in districts where none existed previously. Also, the number of Indian pupils continuing their education beyond the elementary level is increasing; enrolment in secondary schools, universities and special courses numbered 1,051 in 1950-51 as against 772 in the previous year.

The Indian school normally follows the course of study of the province in which it is located, supplemented, in some cases, by vocational training adapted to the needs of Indian pupils. The larger day and residential schools provide courses in leather work, wood work, metal work, boat-building, trapping, poultry-raising, cooking and service, and knitting and weaving. Regional inspectors are in the field to co-ordinate the work of Head Office and the schools and to assist in solving any problems that arise.



Large sums are being expended on new educational facilities across the country. The amount spent on new buildings and equipment in 1950 was \$15,200,000. This addition to the University of British Columbia was completed in 1951.



At Mar. 31, 1951, there were 595 established positions for government-employed teachers in these schools: 38 of these were filled by welfare teachers who, in addition to their regular teaching duties, organize and encourage adult education, women's organizations, etc.

**Higher Education.**—A larger proportion of high-school graduates in Canada are attending university than in pre-war years. In 1939 there were 37,000 full-time university grade students in attendance. The 1949-50 figures showed 74,000 students enrolled, including 14,000 veterans. Exclusive of the latter, enrolment has increased about 60 p.c. over the pre-war figure. Graduate students represented 4 p.c. of the total enrolment in 1939, and 7 p.c. of the total in 1949-50. About 5 p.c. of the students in Canadian universities and colleges are from foreign countries, and 11 p.c. are in attendance at Canadian institutions outside their province of residence.

Current expenditures, as reported by institutions representing 80 p.c. of the total enrolment, have more than doubled since the pre-war era—from \$16,000,000 to \$41,000,000. Provincial government grants amounted to \$14,000,000 in 1950 as compared with \$7,000,000 in 1939. The Federal Government contributed \$2,370,000 on behalf of veterans in 1950. Students' fees, including the fees paid by the Federal Government for student veterans, amounted to \$15,000,000. The proportionate distribution of income by source was as follows: endowments 7 p.c., government grants 42 p.c., student fees 38 p.c., and other sources 13 p.c.

Upon the presentation of the *Report of the Royal Commission on National Development in the Arts, Letters and Sciences*, in June 1951, Parliament voted an appropriation of \$7,100,000 to provide grants to Canadian universities for the academic year 1951-52, as recommended by the Commission. The grant, designed as a payment to the institutions of each province and amounting to 50 cents per capita of the population was distributed on the basis of enrolment. It was administered by the Department of Finance which had the benefit of the advice of a Committee of the National Conference of Canadian Universities and a number of officials of interested government departments.

In the academic year 1949-50, there were 10,168 teachers on the staffs of the universities and colleges, including 4,189 employed on a part-time basis; 60 p.c. of the total were in professional schools and faculties. In the latter group there are five full-time students per teacher and ten per teacher in the faculties of Arts and Pure Science.

Of the 23,535 academic awards in 1950, 18,081 were bachelor or first professional degrees, 3,354 masterships and French licences, 216 earned doctorates, 197 honorary doctorates, and 1,687 certificates and diplomas.

**Adult Education.**—Adult education is becoming progressively more necessary to our way of life. During the past two decades casual learning gleaned from newspapers and magazines, the cinema, drama, radio programs, job experience, etc., has been increasing though not as rapidly as directed adult education. There is a definite trend towards preparing articles or allocating sections of magazines and newspapers, radio programs and documentary films and newsreels for the express purpose of educating the public. Formal education authorities have become interested in promoting community centres, fostering the arts, instituting good citizenship, and developing leadership. Present efforts appeal particularly to persons who have entered the labour force but wish, by attending classes in the evenings, to improve their educational qualifications or expand their knowledge; persons with avocations they wish to advance; and immigrants with few or many years of schooling who desire a better grasp of English and a greater knowledge of Canada and its institutions.

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*Women received 3,245 of the 18,081 bachelor degrees conferred at the end of the 1949-50 academic year. Most of these were in arts, though graduates in household science, nursing, social service and education were fairly numerous.*





*National Farm Radio Forum, a Canadian radio discussion and dramatic program for farm people, has had the honour of being chosen by UNESCO to serve as a model for educational work in other lands conducted through the medium of the radio. Here a tape recording is being made of a Forum discussion.*



In rural areas educational undertakings include: short courses given by itinerant instructors in agriculture or home economics; community centres, built around film programs or radio programs; and folk schools which give young people the opportunity of sharing for a few weeks their experiences in community living. As rural communities are somewhat more homogeneous in interests and organization, provision of adequate educational opportunities is somewhat easier and more advanced than in urban areas. On the other hand, urban organization makes it easier to provide academic and vocational classes at the high school and college level together with a wide variety of hobby and recreational courses. Classes are available through schools, societies or professional groups and through industry.

Services directly or indirectly attributable to the Federal Government include: documentary films produced by the National Film Board; educational radio broadcasts prepared by CBC studios, by the provinces or co-operatively by several provinces and the CBC; art displays and prints from the National Gallery; classes and correspondence courses for adults conducted in various institutions; and pamphlets and books on a wide variety of subjects. Services provided by the provincial governments vary from formal assisted or sponsored education, recreation and fitness, health or youth programs to more sporadic services conducted by the departments of agriculture, forestry, fisheries, etc. Grants are provided in many provinces for teachers who conduct evening courses and teaching aids are made available free or at a nominal cost.

Services provided by universities include courses leading to degrees, correspondence courses, courses for extra-mural students, night classes and summer-school classes. The universities, usually in co-operation with community organizations, also sponsor short courses, conferences, short summer courses, demonstrations, field days, film councils and youth training. Teaching aids, such as study courses, pamphlets, broadcasts, forums, etc., are provided and assistance given in the adjudication of drama and music and the judging of debates.



# Summary Statistics of Education, Academic Year 1948-49

(Includes Newfoundland)

| Type of School or Course                        | Institutions  | Pupils           | Teachers           | Expenditures        |
|-------------------------------------------------|---------------|------------------|--------------------|---------------------|
|                                                 | No.           | No.              | No.                | \$'000              |
| Provincially Controlled Schools—                |               |                  |                    |                     |
| Ordinary and technical day schools.....         | 31,148        | 2,230,939        | 82,050             | 265,712             |
| Evening classes.....                            | ...           | 108,601          | ..                 | 1,006 <sup>1</sup>  |
| Correspondence courses.....                     | 102           | 26,698           | ..                 | 825                 |
| Special schools (blind and deaf).....           | 12            | 1,879            | 218                | 1,595               |
| Normal Schools—                                 |               |                  |                    |                     |
| Full-time course.....                           | 109           | 9,898            | 1,181              | 3,661               |
| Accelerated course.....                         | ..            | 2,341            | ..                 | ..                  |
| Privately Controlled Schools—                   |               |                  |                    |                     |
| Ordinary academic schools.....                  | 832           | 104,737          | 6,479              | 14,860              |
| Business Training Schools—                      |               |                  |                    |                     |
| Day classes.....                                | 248           | 20,074           | 934                | 2,531               |
| Evening classes.....                            | ..            | 15,968           | ..                 | ..                  |
| Indian schools and education in the Territories | 407           | 23,645           | 660                | 6,373               |
| Universities and Colleges—                      |               |                  |                    |                     |
| Preparatory courses.....                        | ..            | 24,288           | 1,768              | ..                  |
| Courses of university standard.....             | 232           | 109,090          | 9,500 <sup>3</sup> | 43,114              |
| Other courses.....                              | ..            | 31,088           | ..                 | ..                  |
| Expenditures Not Included Above—                |               |                  |                    |                     |
| Provincial Governments.....                     | ...           | ...              | ...                | 57,971 <sup>4</sup> |
| Federal Government.....                         | ...           | ...              | ...                | 10,675 <sup>5</sup> |
| <b>Totals.....</b>                              | <b>32,988</b> | <b>2,709,246</b> | <b>102,790</b>     | <b>408,323</b>      |

<sup>1</sup> British Columbia and Ontario only; included with day schools in other provinces.

<sup>2</sup> Not included in the total; correspondence courses are provided by the provincial departments of education.

<sup>3</sup> Includes 4,158 part-time instructors.

<sup>4</sup> Total gross expenditure by the provincial governments was \$170,974,000, including grants to school boards amounting to \$114,192,000 of which \$4,295,000 was provided by the Federal Government.

<sup>5</sup> Includes \$10,480,000 living allowances paid to student veterans. Total expenditure on education by the Federal Government was \$30,515,000 of which \$16,766,000 was spent on the education of veterans.

## • Scientific Research

Scientists are seekers after truth and nothing is more to their liking than full and free discussion of difficult research problems by all those able to make useful contributions. Opportunities to this end are afforded through meetings of scientific and engineering societies and various specialist gatherings convened to consider highly technical subjects. Continuity of effort in this direction is often secured through the appointment of committees by such organizations as the National Research Council, the Defence Research Board, and the Fisheries Research Board, to name only three.

At all these meetings the numerous scientific interests of Canada are usually well represented and, when decisions are taken, the members are able to carry back the recommendations to their respective organizations and institutions. Included in this category are the research establishments maintained by the larger industrial companies at widely separated centres; research foundations and councils in most of the provinces; graduate research centres at the universities; a large and important group of consultants in the science and engineering fields; and publishing houses that produce technical journals and sponsor the publication of scientific books.

An Advisory Panel on Scientific Policy, consisting of senior research officials, keeps in close touch with all research activities carried on under the

Collecting data on preferred fish temperatures at an Ontario Government Research station. The fish-management policy of the Province is built upon sound biological knowledge and tested fishery methods.



auspices of the Government of Canada. Each of these agencies, in turn, maintains working relations with provincial and other research institutions and the machinery of scientific and industrial research throughout Canada is thus integrated into a smoothly working mechanism of high efficiency.

**National Research Council.**—Preparedness is a many-sided problem and, in the present world situation, the National Research Council, in common with all other government organizations, has had once more to consider how best its facilities can be used, should a national emergency arise. Since World War II, practically all the Council's effort has been directed into peacetime activities, but throughout 1951 the trend of work has been gradually oriented towards defence research problems.

The National Research Council consists of the President, two Vice-Presidents (Scientific), one Vice-President (Administration) and sixteen other members, each of the latter group being appointed for a term of three years and chosen to represent industry, labour or research in one of the basic natural sciences. Many of the members are drawn from the science departments of Canadian universities.

The Council at Ottawa is organized with three Science Divisions—applied biology, chemistry and physics—and three other Divisions dealing with engineering problems—building research, radio and electrical engineering, and mechanical engineering which includes aeronautics and hydraulics. The Medical Research Division conducts all its work through grants and fellowships, most of which are tenable in Canadian university medical schools, but in some cases fellowship awards are employed at universities in other countries. In 1951 grants-in-aid were made in support of 130 research projects.

The Division of Information Services operates the library and the Technical Information Service for small industrialists, and publishes research journals in the fields of botany, chemistry, medical sciences, physics, technology and zoology. Liaison offices at Washington and at London co-operate fully with Ottawa in the exchange of scientific information and in arranging for visits, etc.

The Council operates the great atomic energy project at Chalk River, Ont. A Prairie Regional Laboratory at Saskatoon, Sask., serves the agriculturists of Western Canada in the study of problems relating to utilization of farm wastes and the industrial use of agricultural products. A Maritime Regional Laboratory is under construction at Halifax, N.S., for the dual purpose of providing a graduate research centre for the colleges in that area and also to undertake investigations of industrial interest relating to the development and processing of the natural resources of the eastern seaboard.

The staff of the Council in July 1951 numbered about 3,330, including more than 100 students employed during their summer vacation periods. Scholarships are awarded annually by the National Research Council for training in post-graduate research, and grants-in-aid are made to individuals or institutions for the employment of assistants on research projects and for the purchase or construction of unusual apparatus. About 1,600 students have had their training advanced through such scholarships and more than \$5,000,000 has been awarded under grants-in-aid.

Throughout the years, hundreds of specialists have accepted invitations from the Council to serve on associate committees and have brought the wealth of their knowledge and experience to bear on the solution of problems set before them. At present there are about 30 committees functioning in such specialized fields as aeronautics, dental research, forestry, food preservation, grain research, synthetic rubber, snow and ice research, etc.

Practical research covers work in many fields: food-storage and transport, and the utilization of surplus and waste agricultural products; chemical problems in paints, rubber, soaps and detergents, and textiles; aerial photography, X-rays and radiology, and colour standards; aircraft design and testing, engine research, low-temperature investigations, supersonic studies and



A photoelectric meteor detector. The National Research Council and the Dominion Observatory conduct a joint program of meteor observation with radar and radio equipment, visual observers, and both direct and spectro-graphic cameras for meteor photography.



Canada's radio-isotope factory at Chalk River produces a variety of isotopes for scientific, agricultural, medical and industrial use. Here a radioactive substance is being transferred to a shipping container. The radiation survey meter indicates the safe working distance from the "hot" source.



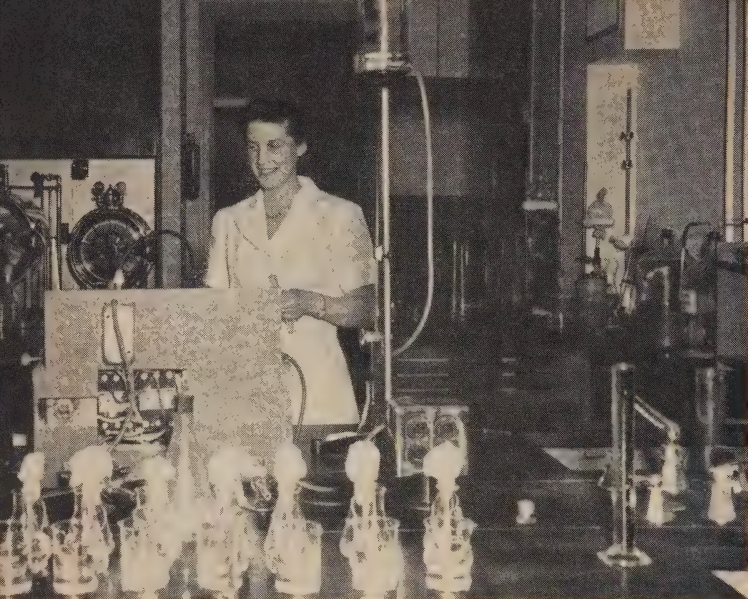
jet propulsion; soil and foundation problems, heat insulation, and work on building materials; radar applications in defence and in aerial and marine navigation and surveying, as well as basic research in electronics, development of apparatus, and specific jobs in electrical and electronic engineering and in applied electronics.

At the atomic energy plant, notable technical achievements have been made in the fields of nuclear physics research, radio-chemistry, radio-biology, and isotope production, as well as in the technology of nuclear reactors and extraction chemistry. New isotopes have been made. Among the previously unknown isotopes produced are phosphorus-33 and protactinium-235. Some 569 shipments of 57 different radio-isotopes were made during 1951. There is a growing demand for these products of the atomic pile, especially for cobalt 60 of high specific activity, which is finding promising applications in both industry and medical therapy.

In applied biology, work includes both fundamental and applied investigations on food preservation, utilization of agricultural crops and residues, fats and oils, biological micro-molecules, plant science, animal science, and biometrics. Recent highlights include studies on the pre-slaughter treatment of hogs and its effect on pork products: rested and fed hogs produce bacon that has better colour, equal flavour, fewer bacteria, and longer keeping quality than bacon from tired or hungry hogs.

Transcontinental trials were made with a railway refrigerator car equipped with overhead bunkers of a new design developed in the laboratories. In the road test, the product temperature was 4° to 5° F. lower in the test car than in a standard car.

Sugar-beet molasses was proved to be an excellent raw material for production of butanediol by fermentation, and waste sulphite liquor is also being investigated as a raw material for fermentation. New antibiotic and enzyme-producing fermentations are being studied, and radioactive tracers are being used to obtain a better understanding of certain fermentation mechanisms. Many bacterial antibiotics have been checked for possible use in the control of plant diseases in Western Canada. Crop utilization studies include work on



*Apparatus used in the National Research Council's Prairie Regional Laboratory at Saskatoon, Sask., to investigate a process for the production of amylase by fermentation.*

starches, proteins, oils from rapeseed, flax, sunflower and similar crops, and the straw residue.

In the Building Research Division the National Building Code is under revision and nearing completion. Technical housing research is essentially of a long-term character. Investigations start in the laboratory, are continued in relation to climate by means of test huts, then transferred to small test buildings for full-scale investigation, and finally incorporated in experimental houses.

A large part of the laboratory research in chemistry and physics is in the field of pure science and much of it is done by post-doctorate fellows. These scientists have come from many countries to work with Council scientists whose reputations in their respective fields have won them world recognition.

The scope of the Division of Mechanical Engineering includes aerodynamics, hydrodynamics, thermodynamics, and mechanics and, from an engineering standpoint, many branches of aeronautical engineering, together with certain phases of hydraulic and mechanical engineering and naval architecture. The aeronautical laboratories provide the Canadian aviation industry, both constructors and operators, with research, development and testing facilities, and function as the research organization of the Royal Canadian Air Force. These laboratories include units for work on aerodynamics, engines, fuels and lubricants, structures and instruments, and there is a flight research station at Arnprior, Ont. In hydraulic engineering, facilities are available for work on models of hydraulic structures and river and harbour projects. A model-testing basin is equipped for resistance and other tests on ship models and propellers. The Division's facilities also include low-temperature and general engineering laboratories. A new supersonic laboratory is in operation. Speeds attainable vary from the transonic range up to five or more times the speed of sound. A thermodynamics laboratory is being built as a separate wing for work on compressors, gas turbines and combustion.



Both fundamental and applied research are carried on in the Division of Physics. Extensive studies of cosmic rays are being made from recordings of Geiger counters at an Arctic post and at Ottawa to obtain information on the relationship between cosmic-ray activity and meteorological and magnetic conditions. Another research group is using photographic emulsions to record collisions between cosmic rays and atomic nuclei.

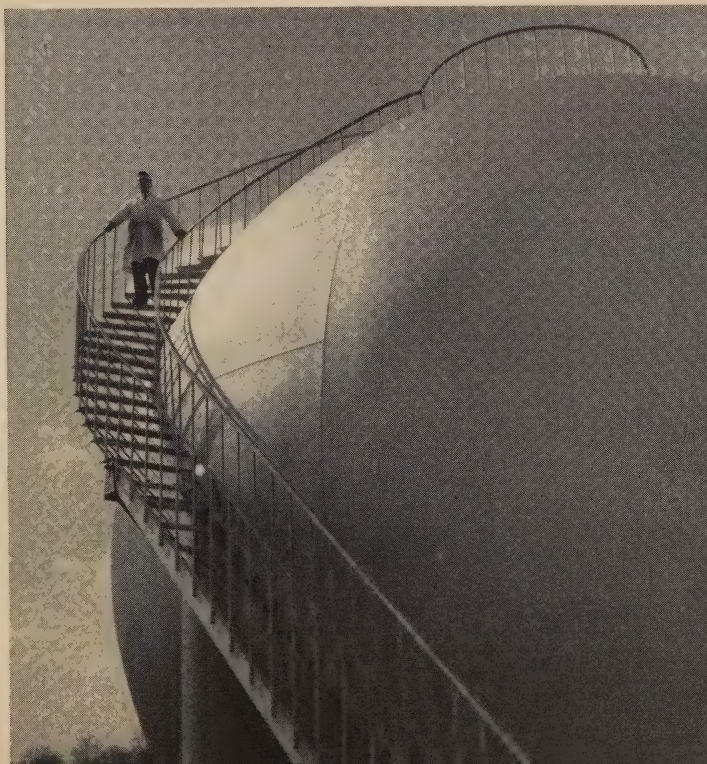
Successful experiments, conducted to secure information needed for the design of a new type of radiation unit for cancer treatment, have been concluded using two radioactive cobalt sources (among the largest yet made) each equivalent to about 100 grams of radium. (See illustration on p. 11.)

An investigation into the operation of marine fog horns led to a 20-fold improvement in their efficiency through the adaptation of modern acoustical theory to their design. Work is proceeding on diesel locomotive horns, using similar techniques. Other work concerns optics, heat insulation studies, colorimetry and X-ray diffraction.

Radio and Electrical Engineering covers a diversified field. An inexpensive radar-beacon receiver has been developed for use on small vessels in conjunction with shore transmitters, to guide ships under conditions of poor visibility. A million-volt surge generator has been designed and built to test power transmission-line insulators, transformers and cables, and a portable electronic heat detector weighing under twelve pounds has been developed for locating faulty joints on power lines.

In all its activities the National Research Council seeks to provide an effective medium for leadership and co-operation in the training of competent research workers and in the application of scientific knowledge in the universities and industries throughout Canada.

*Vacuum sphere of the supersonic wind tunnel in operation at the High Speed Aerodynamics Laboratory of the National Research Council. The sphere draws air through the wind tunnel at velocities higher than that of sound; it creates speeds equivalent to 5,000 m.p.h. at sea level.*







*Artist at work on a mural in a bank office. Industry, whether as a part of its advertising and public relations program or in the national interest, is helping to put a solid foundation under the growth of Canadian culture. Business dollars are going into fine art, literature, music, sculpturing, ballet, the theatre and the development of Canadian crafts.*

# Social and Cultural Relationships

CANADIANS may now view for the first time in national perspective their various cultural institutions and services, and thereby gain a new conception of their value and their possibilities of development. The *Report of the Royal Commission on National Development in the Arts, Letters and Sciences\**, which has enjoyed a wide public demand since its tabling in Parliament on June 1, 1951, surveys the mass media of broadcasting, television, films, the press and periodical literature, in which the flood of production pouring in from the United States tends to stifle rather than stimulate Canadian effort; the inadequately supported galleries, museums, libraries and archives; the pressing problems of the universities, handicapped by inadequate incomes; the relative neglect of scholarly work in the humanities and social sciences; the condition of the creative arts and their inestimable value in Canadian life; and finally, Canada's responsibilities under the United Nations Educational, Scientific and Cultural Organization and the "projection of Canada abroad".

Even a capsule summary of the recommendations of the Commission need not be attempted here when the Report itself is readily available. The most outstanding among the recommendations is the proposal to create a government-supported body, partly advisory and partly administrative in character, to do for the arts and letters and for the humanities and social sciences what the National Research Council does for the natural sciences and the technical crafts. This "Canada Council for the Encouragement of the Arts, Letters, Humanities and Social Sciences" would be charged also with fostering Canada's cultural relations abroad, performing the functions of a national commission for UNESCO, and devising and administering a system of fellowships and scholarships which would permit talented Canadians to study at home or abroad and enable students from other countries to continue their advanced studies in Canada.

The recommendations of the Commission, whether concerned with a Canada Council, a national system of radio broadcasting and television, the National Film Board, federal financial aid to the universities, a national system of scholarships, the National Museum, the National Gallery, the Public Archives, or a National Library will, in the words of the Prime Minister, "be of the greatest assistance to the government in determining appropriate policies for such federal action as may be desirable in these fields". Canadian scholars, artists and craftsmen—indeed the public at large—look for a quickening and enrichment of the whole spirit and content of the nation's cultural activity as steps are taken to implement the various recommendations of the Commission.

## Creative Arts

It appears certain that Canada is entering a new era of vigorous cultural development. Public interest in all forms of creative art has shown a distinct upward trend since 1946 and cultural activities are beginning to

\* Ottawa, King's Printer, 1951.

assume a relatively important place in the life and thought of the Canadian people. This development may be attributed to a number of factors, some of which are domestic and others external. The post-war expansion and speeding up of travel has resulted in a noteworthy exchange of persons concerned with cultural and intellectual matters between Canada and other countries; travelling companies of artists and performers, mainly from the United States and Great Britain, have whetted the Canadian appetite for first-rate musical, dramatic and ballet entertainment; growing interest in the affairs of UNESCO has led many Canadians to a new international-mindedness in cultural affairs; newspaper publicity attending the public session of the Massey Commission generated widespread Canadian interest in cultural and educational matters; and interest has been stimulated by the extraordinary volume of information reaching Canada, by radio and periodical literature, concerning artistic activities in other lands.

Although activity in the creative arts is vigorous in every part of Canada, it is mainly on a local and regional basis and factors that might tend toward the promotion of national cultural strength and loyalties are notably weak or absent. This situation was one that gained attention repeatedly during the Massey Commission enquiries, and remedial proposals constitute some of the most important recommendations presented in the Report. Canadians in many walks of life have been deeply concerned by the nation's failure to develop an informal but effective national cultural and intellectual framework.

The growth of interest in the arts has been so widespread and general that it is impossible to describe it adequately in a brief space and reference to representative examples is all that can be attempted here.

**Creative Writing.**—The dominant fact in the field of creative Canadian writing in English is that the work of native writers must always compete with the constant, inflowing tide of literature from the United States and Great Britain. However, in the past decade a number of Canadian writers, in both the English and French languages, have succeeded in establishing themselves as clear thinkers and competent literary craftsmen, and their works are receiving increasing recognition both at home and abroad. Several Canadian novelists have gained widespread approval, in translations as well as in the language of original creation, for their strong treatment of important themes. It is also a matter of some satisfaction that scientific works, academic theses and belles lettres of Canadian origin are appearing with greater frequency in the recommended booklists of many countries. Playwriting has received special attention and encouragement in Canada since 1945, and several volumes of plays by Canadian authors have proved successful publishing ventures. Poetry, in which field Canadians were prolific but mediocre for many years, has recently achieved a more substantial part in the national literary scene. Factors that have been effective in encouraging creative writing in Canada include: the work of the well-organized craft organizations—the Canadian Authors' Association and La Société des Écrivains Canadiens; bursaries and fellowships awarded by the Canadian Social Science Research Council and the Canadian Humanities Research Council; and prestige awards such as the Governor General's Awards, the Quebec Government (David) Awards, the President's Awards offered by the University of Western Ontario, and the National Awards offered by the University of Alberta.



Rt. Hon. Louis  
St. Laurent,  
Prime Minister of  
Canada (right),  
receives the report  
of the Royal Com-  
mission on Nation-  
Development in  
the Arts, Letters  
and Sciences from  
the Rt. Hon.  
Vincent Massey,  
Chairman of the  
Commission. Mr.  
Massey has since  
been appointed  
Governor General  
of Canada.



**Music.**—From the earliest times in the settlement of Canada music has been important in the life of the people, and to-day one finds organizations devoted to the promotion, performance and teaching of music in every village, town and city. In each province the official school system places notable emphasis upon the understanding and appreciation of music in all its forms. Annual musical festivals, involving many thousands of performers and competitors, are outstanding events in a number of the larger cities, and the Canadian Music Festivals Association is one of the country's few national cultural bodies. Canadians have indicated enthusiasm and warm support for opera in recent years, and a School of Opera is now one of the important and successful divisions of the Royal Conservatory of Music of Toronto. The Canadian Broadcasting Corporation maintains a competent operatic company for performances on its own networks. In Nova Scotia a pioneer venture has brought excellent operatic performances to smaller centres of population, and has gained well-deserved attention and support. In Toronto, Montreal, Winnipeg and Vancouver, local operatic companies are receiving good box-office encouragement. In Montreal an annual music-and-drama festival has cleared the hurdles of several years of experimentation and now appears to be successfully established. Symphony orchestras in a dozen Canadian cities are receiving increasingly satisfactory financial support from local sources and the quality of their performances continues to improve despite the fact that none of these orchestras can afford the full-time services of their musicians. Symphony orchestras in Toronto and Montreal are widely



*Rehearsal for "The Marriage of Figaro", Toronto Opera School.*

recognized as being of first-class calibre. The music composers of Canada, after many years of almost total neglect, are now receiving increasing acceptance in Canada and elsewhere, and are finding outlets for their works through the Canadian Broadcasting Corporation and Broadcast Music (Canada) Inc. Also many Canadian musicians are receiving invitations to perform abroad, thus directing the attention of foreign critics to the creative works and performances of young Canadians.

**Drama.**—A renewal of public interest in theatre in Canada, noted particularly just after the War, has persisted. The Dominion Drama Festival, which is a one-week competitive demonstration of the talents of theatrical groups from various parts of the country, following regional elimination competitions, enjoys unique success. Recent developments of importance include the setting up of a permanent national secretariat of the Dominion Drama Festival (at Ottawa) and the growth of public discussion of the subject of a "national theatre". Top Canadian acting, writing and directing talent is employed by the CBC in the presentation of an extensive assortment of plays enjoyed regularly by country-wide audiences. Summer theatre groups have increased in number and exuberance and are now performing successfully in all the thickly populated centres of Canada. In Toronto and Montreal



Shakespearean festivals are box-office successes. Montreal's French-language theatre is successful and relatively extensive. In Ottawa a professional company, playing a daily schedule and a new play each week, has succeeded in firmly establishing itself, not only among native sons but also among the critical international audience that constitutes the Capital's "diplomatic row". The Little Theatre Movement, which has been the backbone and inspiration of drama appreciation in Canada, continues to thrive throughout the whole country, in spite of, or possibly as a result of, the deeply ingrained habit of movie-going.

*Little Theatre groups and drama leagues across the country provide outlets for all types of histrionic talent. Stage director discusses scenery with the designers.*



*A junior group learns about set construction.*







A Vancouver sculptress with the head of Hippocrates—part of a large figure she created for the new Academy of Medicine building at Vancouver, B.C. During the summer this sculptress broadcast a series of CBC talks under the title "Art Every Day".

**Painting.**—Public interest in the visual arts is increasing in all the urban centres of Canada, and the field of painting is no longer *terra incognita* to the average citizen. Many new exhibitions and exhibitors are noted, and the large numbers of people attending art shows is a source of gratification to artists and educators. The famous Exhibition of Treasures of the Hapsburgs was seen by many thousands of people during its month-long stay in Toronto in the summer of 1951. Canadians in great numbers have adopted painting as an avocation in recent years, with a resulting large increase in activities of art schools in all the Canadian cities. The National Gallery of Canada is meeting with success in its efforts to encourage the acceptance of travelling art exhibitions by responsible local authorities throughout Canada. Groups of

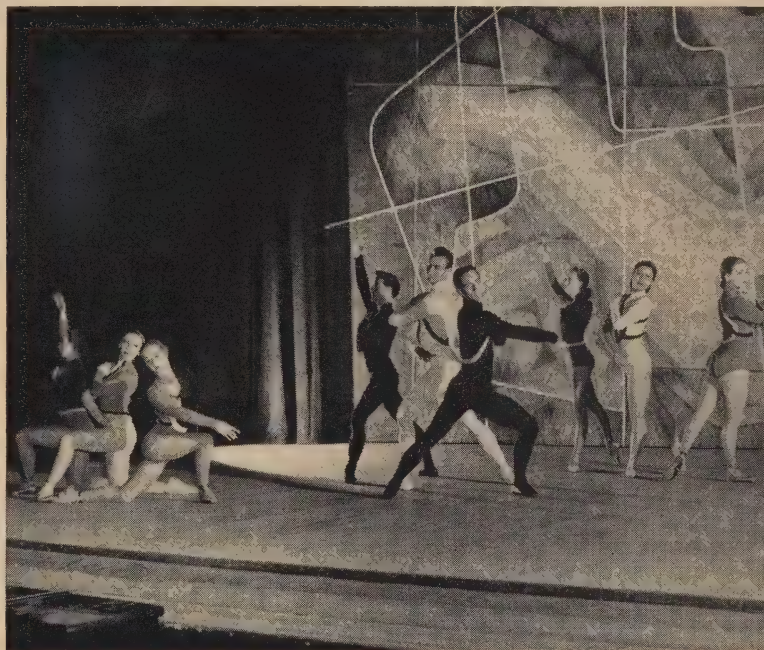


Students at the Banff School of Fine Arts work under the guidance of top-flight artists.

painters in all the Canadian cities, and particularly in Montreal, are eager and vigorous and are attracting a great deal of wholesome interest. The number of young Canadian painters who travel abroad—to Europe, to Mexico, to the United States—for training and experience, is increasing, resulting in a natural enlargement of professional understanding and appreciation. Mature and established Canadian painters are finding a ready and profitable market for their works, although very few of them are able to make a living exclusively from the sale of paintings.

**Ballet.**—Striking evidence of phenomenal public interest in the ballet was seen at recent Canadian Ballet Festivals. At Toronto the largest theatre in the

scene from  
"Intermede", a  
modern ballet  
danced to an  
eighteenth century  
concerto for oboe  
and strings by  
Cimarrosa, pro-  
duced by the  
Winnipeg Ballet.



city was completely sold out for every one of ten performances, and at Montreal sixteen ballet companies from Vancouver, Winnipeg, Toronto, Ottawa, Montreal and Halifax played to packed houses. Virtually an unknown art in Canada a few years ago, ballet is now one of the surest box-office attractions, and close to 20,000 students are enrolled in ballet schools throughout the country. Many graduates of experienced organizations in the field have found places in world-renowned troupes. This groundwork has been of particular advantage to a new venture launched in Toronto in 1951 under the name of National Ballet of Canada—an endeavour to establish a full-time, professional ballet company aiming to serve the entire Canadian community.

**Schools and Organizations.**—Cultural institutions in Canada are crowded with students and patrons. A number of fine arts schools are attracting



capacity attendance at summer and winter sessions. Notable among these is the Banff School of Fine Arts, the Doon School and the well-known art schools of eight or ten universities and colleges. The Écoles des Beaux-Arts at Montreal and Quebec and the Ontario College of Art, Toronto, are internationally known institutions. The Canadian Arts Council, Toronto, a federation of seventeen professional societies, and the Canada Foundation, Ottawa, an information centre supported by a large number of individual patrons, are the two non-governmental bodies best known as stimulants in the cultural life of Canada.

**Handicrafts.**—The varied resources of Canada provide the raw materials for home crafts using wood, metals, leather, wool, various fibres and dyes, and clay in some regions. The diverse origins of the people provide traditions of craftsmanship from many sources—the native Indians, the early French and British settlers, and the more recent immigrants from all parts of Europe and some parts of Asia.

Several provincial governments have given stimulus and direction to the development of handicrafts. Those of the Province of Quebec are probably most widely known and practised. There are various voluntary organizations on a local basis, nine of which are affiliated or associated with the Canadian Handicrafts Guild. The Guild has provincial branches in five provinces and maintains a permanent exhibit at its headquarters at Montreal.

### ***Social Sciences and Humanities***

Research in the social sciences is left mainly to the universities and to government agencies. It is reported in books and government documents and in the quarterly journals of such societies as the Canadian Historical Association, the Canadian Political Science Association, the Canadian Psychological Association and the Canadian Institute of International Affairs. The several university quarterlies also serve but, as with the Proceedings of the Royal Society of Canada and the learned journals of the United Kingdom and the United States, they are rather more important as outlets for the humanities than for the social sciences.

The Canadian Social Science Research Council was organized in 1940 to assist the social sciences in every way possible. Its activities include: direct assistance to social scientists for work undertaken and awaiting publication; assistance in training mature students in social science; co-operative research investigations covering several fields; investigations and conferences to aid teaching and research and point up the significance of the social sciences to-day. Similarly the Humanities Research Council, founded in 1943, is interested in fostering problems of research in the humanities and assisting in their publication.

In the few years of their existence these two Councils have been supported largely by grants from the Carnegie Corporation of New York and the Rockefeller Foundation. The Humanities Council has, however, received grants from 20 Canadian universities for six years, and seeks assistance from government sources. The Social Science Research Council does not desire government origin for any major portion of its income. As much of its subject field concerns matters of government policy, it considers that greater independence can be retained by deriving its funds from a balanced variety of sources.



Blue Road

Uri Masson



September Gale

Arthur Lismer, R.C.A.





The Jack Pine

Tom Thomson

Street Scene, Quebec,  
at Night

Clarence A. Gagnon, R.C.A.





*Glazing bisqué pieces in a New Brunswick pottery-making workshop. The bottoms are being scraped and sponged free of glaze.*



Both Councils expressed the view before the Royal Commission on National Development in the Arts, Letters and Sciences that there is great need for government funds to provide scholarships and fellowships to students of the social sciences and humanities, in part to offset the opportunities provided for students of the natural sciences through the National Research Council awards. They pointed to a study made in the Dominion Bureau of Statistics which showed that nearly all science post-graduate students in Canadian universities receive financial assistance from scholarships, fellowships or part-time employment while studying, whereas only 30 p.c. of social science and humanities students receive such assistance.

### *Libraries and Museums*

**Libraries.**—During the past five years, since the foundation of the Canadian Library Association, the libraries of Canada have developed a policy of co-ordinated action in the promotion of cultural standards within the nation through library service, and of co-operation with other agencies within and outside of Canada interested in the promotion of education, science and culture. Basically institutions established for local service, the libraries are developing a national field of service and are assuming a greater degree of responsibility in the international commitments of Canada that lie within their scope.

At the national level, the librarians as a group have promoted projects preparatory to the establishment of a National Library for Canada. As the first step, the Federal Government has provided funds for the establishment of a Bibliographic Centre which is now engaged in the preparation of a national union catalogue to provide information on the location of rare books and documents of national interest in Canada. The work of the Centre will expand to provide for the reproduction of valuable government and other historic documents on microfilm, and will promote the practice of inter-library loans of available material.



At the international level, the librarians are co-operating with such organizations as UNESCO and international associations for librarians, for adult education and for audio-visual education.

The Canadian Library Association has undertaken the publication of the *Canadian Index*, an index to 53 Canadian periodicals, to films produced in Canada and to miscellaneous pamphlets of interest to librarians. It has reproduced on microfilm 61 of the early newspapers of Canada for the use of scholars interested in historical data.

Through the efforts of the Association, a "Young Canada Book Week" has been inaugurated to acquaint parents, teachers and organizations interested in youth, with the tastes of young people in reading and to provide lists of books recommended for children and teen-agers. The libraries are co-operating with the schools and provincial departments of education in providing reading and reference books and in teaching school children how to use libraries. In many places the public library, in co-operation with the National Film Board, the National Film Society and the Department of Education, has introduced programs of educational films and is the central deposit station for films that may be used by schools and community organizations for visual education.

The public libraries of Canada, exclusive of Newfoundland, stock about 6,800,000 books; two-thirds of which are concentrated in 52 cities. Registered borrowers number 1,200,000 persons, each of whom borrows on the average 18 books a year. The ratio of adult to juvenile book circulation is about three to two. School libraries, in the main, supplement the public library systems. Commercial lending libraries and individual purchases provide a large proportion of the books read by adults.

Library service in the Province of Newfoundland is under control of a Public Libraries Board within the Department of Home Affairs and Education. The system includes the Gosling Memorial Library of the city of St. John's, the Travelling Library and regional libraries.

In the older provinces, some improvement in rural service is apparent, due to the establishment of new regional libraries and improved methods of distribution of books to small rural community libraries. Exclusive of Quebec Province, which has a system of parish libraries not covered by the statistical survey, the service to rural areas has increased from 5 p.c. to 13.5 p.c. in the past decade. Nova Scotia has organized four new regional libraries for the Annapolis Valley, Cape Breton Island, Pictou and Colchester-East Hants districts. Saskatchewan has established at Prince Albert the first regional library of a proposed provincial system.

Ontario has a system of county co-operative libraries and large township libraries as an adaptation of regional service. There are now 13 county library co-operatives and six township libraries in the Province. The older regional libraries of Prince Edward Island and British Columbia report increases in circulation of 5 p.c. and 12 p.c., respectively.

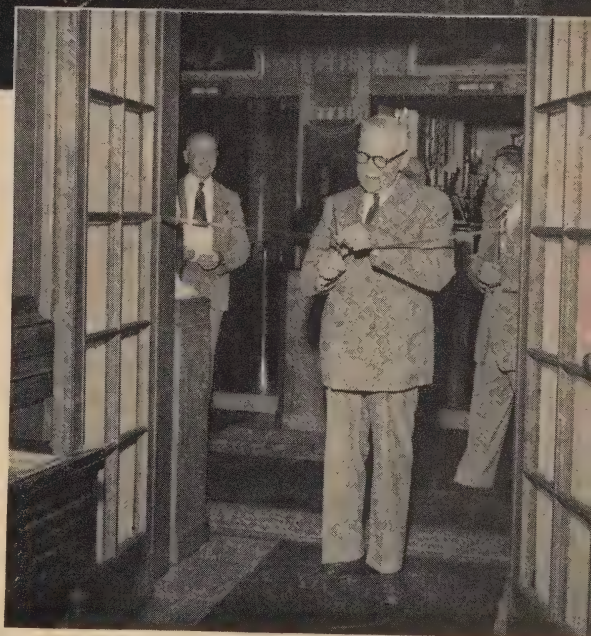
**Museums.**—Canadian museums range from small private collections to the National Museum of Canada and include several provincial and municipal museums and a number of university, college or local society collections.

The National Museum, although essentially a museum of natural history, has developed an extensive section for anthropology including Indian and Eskimo lore and a large number of phonographic recordings of

The study in the Ottawa home of the late William Lyon Mackenzie King, former Prime Minister of Canada. Laurier House was opened to the public on Aug. 1, 1951, as a national shrine.



The Rt. Hon. Louis S. St. Laurent, Prime Minister of Canada, cuts the ribbon at the opening ceremony.



French-Canadian, English-language and Indian songs. The Public Archives of Canada is primarily concerned with the story of government in Canada and to this end has assembled a large and valuable collection of historical manuscripts, maps, newspapers, prints and pictures, as well as a museum collection of costumes, weapons, coins and medals. The Canadian War Museum is devoted to the collection of war trophies, weapons and pictures, mainly in connection with World War I.

The Royal Ontario Museum, the largest of the provincial museums, has collections representing natural history, general history and the history of

art. It carries on extensive work in research and publication. Local museums usually house exhibits and relics of pioneer days in their own districts.

The National Gallery has assembled a permanent collection of paintings and sculpture, prints and drawings representative of past and present styles of various parts of the world. The Canadian section is, of course, the most inclusive. This collection is made available to the whole country by means of catalogues, photographs, colour reproductions, films, radio broadcasts and, to a limited extent, by loans. The extension work of the Gallery includes the organization of exhibitions from collections abroad and the fostering of Canadian industrial art.

The Canadian Museums Association was organized in 1947 to act as a clearing-house for information of special interest to Canadian museums, to promote the training of museum workers, to facilitate the exchange of exhibits and to promote collaboration with museums of other countries.

### *Media of Mass Communication*

**The Press.**—Periodic publications to the value of \$141,495,394 were produced in Canada in 1949, of which amount \$98,034,677 was realized from advertising and \$39,000,000 by subscription or sale. Printed and bound books were produced to the value of \$18,370,000. While there is no record of the amount spent by Canadians on subscriptions to periodicals published abroad, it is probably more than the amount of subscriptions from abroad for Canadian publications. Recorded imports of books and other printed matter exceeded recorded exports, the former amounting to \$36,077,922 and the latter \$2,634,099. It appears that the per capita expenditure of Canadians on books, pamphlets and periodicals is in the neighbourhood of \$10 a year, about half of which is paid directly and half indirectly through payment for advertising.

The largest item, that for newspapers, covers more than half the total. About 100 daily newspapers, counting morning and evening editions separately, are published in Canada, with an aggregate reported circulation of more than 3,000,000—about 80 p.c. English and the remainder French, except for a few in Yiddish or Chinese. Ten of the papers whose circulations are each near or in excess of 100,000 account for more than half of the circulation. Well over 90 p.c. of all newspaper circulation is in the cities.

Weekly or monthly publications with a total circulation in excess of 1,000,000, include a considerable variety of foreign-language publications—Ukrainian, German, Yiddish, Polish, etc. Weekly newspapers serve a much greater percentage of the people in rural communities than do the dailies.

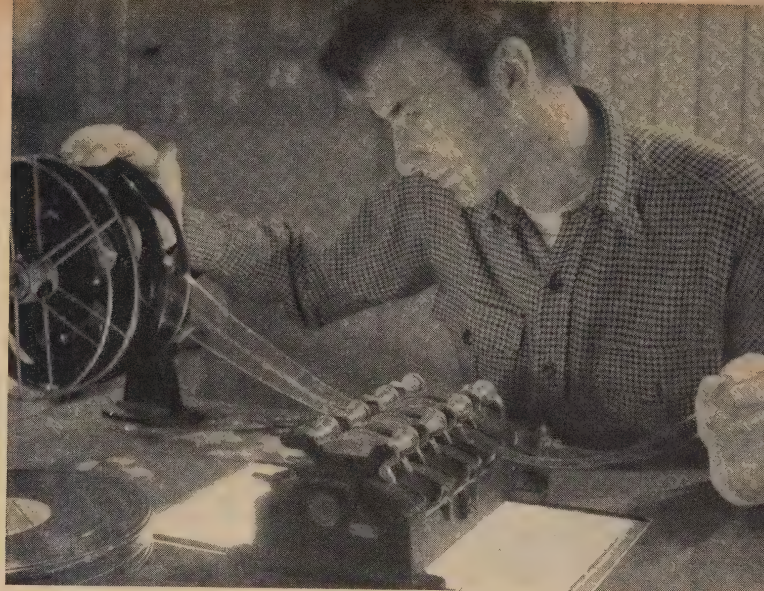
Circulation of Canadian magazines was about 10,000,000 in 1949. In order of popularity, magazines classed under home, social and welfare came first, agriculture second and religion third.

Purchases of books and other printed matter from the United States are significant, recorded imports averaging about \$29,000,000 for each of the past five years. Imports from the United Kingdom have shown an increase in post-war years but are still valued at only about \$2,000,000. Imports from France, the third largest supplier, are valued at around \$500,000.

**Radio.**—Radio broadcasting in Canada is dealt with at pp. 252-256. The number of radio receiving sets made available in Canada through production and imports has averaged about 700,000 per year since the end of the second



National Film  
Board animation  
artist editing  
35 mm. film.



world war, and the average price to the buyer in that period was about \$70 per set. A Bureau of Statistics survey conducted in October 1949 indicated that 93 p.c. of the 3,247,000 households in Canada had radios. In some cities there was scarcely a household without one and in the country as a whole one family in ten had two or more. The required licence fee of \$2.50 a year was paid by 2,212,435 possessors of receiving sets in the year ended Mar. 31, 1951.

**Motion Pictures.**—In 1950 there were 1,801 motion-picture theatres in Canada with a seating capacity of 927,951, 62 drive-in theatres, 586 community halls offering screenings, and 175 itinerant projectors. On the average, each Canadian attended 18 motion-picture programs and paid \$7 in admissions. Most of the films shown were produced in the United States although a small but increasing number of films came from the United Kingdom and a few from France and other European countries. While few feature-length films for commercial theatres are produced in Canada, there is a considerable production of documentary shorts by the National Film Board and by commercial producers, some of which have won international awards. In 1949 the Canadian Association for Adult Education instituted a series of annual awards for distinguished Canadian film productions, including theatrical and non-theatrical types, amateur and professional work. The project was developed by the Association's Joint Planning Commission composed of representatives of fifty national organizations interested in education and the arts.

Schools, adult education agencies, and other community groups are making increased use of films. There are some 200 film libraries and community film councils in existence, usually developed by public libraries, provincial departments of education, or university extension departments, with the co-operation of school boards, service clubs, etc. The National Film Board has established some 160 rural circuits for periodical film-showing and local libraries receive assistance in obtaining films from the Film Board and the Canadian Film Institute. The distribution of Canadian films abroad has recently become an important part of the Board's work.



# National Income

## Survey of Production

THIS analysis summarizes the year-to-year changes in the value of Canada's annual production of goods and services, and describes the way in which this total product of the country's economic activity is utilized to satisfy consumer wants, to provide government services, or to increase the nation's capital at home and abroad. The first section, "National Income", deals with net national income at factor cost, gross national product and expenditure, and personal income and its disposition. The second section, "Survey of Production", describes the net value of commodity production.

### • National Income

Net national income at factor cost, or *National Income*, measures the value of current production after provision has been made for depreciation of capital assets, and exclusive of indirect taxes less subsidies. It is equal to the annual earnings of Canadian residents from the production of goods and services, that is, the sum of wages, salaries and supplementary labour income, military pay and allowances, corporation profits and other returns on invested capital, and net income of farmers and other enterprisers who are in business on their own account.

*Gross National Product* is defined as the value at market prices of all the goods and services produced in a year by the labour, capital and enterprise of Canadian residents, measured through a consolidated national accounting of the costs involved in their production. It is obtained by adding to national income indirect taxes and depreciation allowances and similar business costs which enter into the cost of goods and services (and hence market prices) but do not form a part of the incomes of Canadians. On the other hand, government subsidies are deducted since their effect is to reduce the cost of goods and services produced.

*Gross National Expenditure* is defined as the market value of all goods and services produced in a year by the labour, capital and enterprise of Canadian residents, measured through a consolidated national accounting of the sales of these goods and services, including changes in inventories. Thus, while it measures the same total as gross national product, it indicates how the goods and services produced are disposed of to households, governments, to business (on capital account), and to non-residents.

**National Income and Gross National Product.**—The national income expressed in current dollars increased by 9 p.c. from 1949 to 1950, from \$13,194,000,000 to \$14,406,000,000. This increase was mainly due to increases in salaries, wages and supplementary labour income of \$510,000,000, investment income of \$476,000,000, and net income of non-farm unincorporated business of \$129,000,000. Military pay and allowances rose slightly as did net income of farmers from farm operations.



The gross national product reached \$18,029,000,000 in 1950, a gain of 10 p.c. over 1949. Since it is measured in terms of current dollars, the gross national product reflects price changes as well as changes in the physical volume of production. If adjustments are made to eliminate the influence of price changes, it appears that the real output of goods and services increased by approximately 5 p.c.

During the post-war years 1946-50, the value of total output increased 50 p.c. The rise in value was most rapid during 1947 and 1948, the years of the greatest price increases. However, with the effect of price increases removed, the total volume shows a relatively steady gain of approximately 3 p.c. per year.

**Net National Income at Factor Cost and Gross National Product at Market Prices, 1929, 1933, 1939, 1944 and 1946-50**

(Millions of Dollars)

| Item                                                         | 1929         | 1933         | 1939         | 1944          | 1946          | 1947          | 1948          | 1949          | 1950          |
|--------------------------------------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Salaries, wages and supplementary labour income.             | 2,929        | 1,778        | 2,575        | 4,940         | 5,323         | 6,221         | 7,170         | 7,761         | 8,271         |
| Military pay and allowances.....                             | 8            | 8            | 32           | 1,068         | 340           | 83            | 82            | 115           | 137           |
| Investment income.....                                       | 836          | 299          | 917          | 1,829         | 1,975         | 2,269         | 2,464         | 2,445         | 2,921         |
| Net Income of Agriculture and Other Unincorporated Business— |              |              |              |               |               |               |               |               |               |
| Farm operators from farm production.....                     | 408          | 74           | 385          | 1,185         | 1,112         | 1,223         | 1,518         | 1,504         | 1,579         |
| Other unincorporated business.....                           | 608          | 293          | 464          | 804           | 1,071         | 1,189         | 1,326         | 1,369         | 1,498         |
| <b>Net National Income at Factor Cost.....</b>               | <b>4,789</b> | <b>2,452</b> | <b>4,373</b> | <b>9,826</b>  | <b>9,821</b>  | <b>10,985</b> | <b>12,560</b> | <b>13,194</b> | <b>14,406</b> |
| Indirect taxes less subsidies.....                           | 681          | 537          | 733          | 1,111         | 1,269         | 1,604         | 1,772         | 1,830         | 1,986         |
| Depreciation allowances and similar business costs.....      | 709          | 547          | 610          | 957           | 903           | 1,118         | 1,276         | 1,437         | 1,614         |
| Residual error of estimate                                   | -13          | +16          | -9           | +60           | +33           | +61           | +5            | +1            | +23           |
| <b>Gross National Product at Market Prices.....</b>          | <b>6,166</b> | <b>3,552</b> | <b>5,707</b> | <b>11,954</b> | <b>12,026</b> | <b>13,768</b> | <b>15,613</b> | <b>16,462</b> | <b>18,029</b> |

**Gross National Expenditure.**—All components of the gross national expenditure showed an increase in 1950 compared with 1949. Personal expenditure on consumer goods and services increased from \$10,963,000,000 in 1949 to \$11,862,000,000 in 1950. After correcting for price changes, the increase in the real volume of consumer goods and services amounted to 4 p.c.

Government expenditure on goods and services increased by \$186,000,000 in 1950 over 1949, owing to higher defence expenditure at the federal level, and to increases in capital expenditure and flood relief at the provincial and municipal levels.

The aggregate of gross domestic investment increased by \$985,000,000, with inventories accounting for \$764,000,000 of this increase. However, after allowing for inventory valuation adjustment in both years, the increase in inventories was reduced to \$606,000,000. The volume increase of gross domestic investment from 1949 to 1950 was 21 p.c.

# **Gross National Expenditure at Market Prices, 1929, 1933, 1939, 1944 and 1946-50**

(Millions of Dollars)

| Item                                                         | 1929         | 1933         | 1939         | 1944          | 1946          | 1947          | 1948          | 1949          | 1950          |
|--------------------------------------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Personal expenditure on consumer goods and services.....     | 4,393        | 2,887        | 3,904        | 6,187         | 7,977         | 9,173         | 10,112        | 10,963        | 11,862        |
| Government expenditure on goods and services <sup>1</sup> .. | 682          | 526          | 735          | 5,022         | 1,832         | 1,570         | 1,798         | 2,128         | 2,314         |
| Gross Domestic Investment—                                   |              |              |              |               |               |               |               |               |               |
| Plant equipment and housing.....                             | 1,330        | 239          | 605          | 859           | 1,398         | 2,121         | 2,685         | 2,968         | 3,189         |
| Inventories.....                                             | 61           | -82          | 331          | -46           | 519           | 947           | 605           | 231           | 995           |
| Exports of goods and services <sup>2</sup> .....             | 1,632        | 826          | 1,451        | 3,561         | 3,210         | 3,638         | 4,054         | 4,011         | 4,173         |
| Imports of goods and services.....                           | -1,945       | -828         | -1,328       | -3,569        | -2,878        | -3,621        | -3,636        | -3,837        | -4,482        |
| Residual error of estimate.                                  | +13          | -16          | +9           | -60           | -32           | -60           | -5            | -2            | -22           |
| <b>Gross National Expenditure at Market Prices.</b>          | <b>6,166</b> | <b>3,552</b> | <b>5,707</b> | <b>11,954</b> | <b>12,026</b> | <b>13,768</b> | <b>15,613</b> | <b>16,462</b> | <b>18,029</b> |

<sup>1</sup> Includes UNRRA, Mutual Aid, etc., of \$960,000,000, \$97,000,000, \$38,000,000, and \$19,000,000 in the years 1944, 1946, 1947 and 1948, respectively.      <sup>2</sup> Excludes UNRRA, Mutual Aid, etc., see footnote 1.

Imports rose more rapidly than exports from 1949 to 1950, the increase in imports of \$645,000,000 comparing with an increase in exports of \$162,000,000. Thus there was a deficit of \$309,000,000 in 1950 compared with a positive net foreign balance of \$174,000,000 in 1949.

*Nylon yarn leaves the factory wound on bobbins, cones or spools.*



It is interesting to compare the spending pattern of the nation in the war year 1944 with 1950, the latest year for which data are available. Under pressure of war requirements consumer spending was curtailed, with the result that in 1944 only 52 p.c. of gross national expenditure was absorbed by personal expenditure on consumer goods and services. In the same year government spending, mainly for war requirements, absorbed 42 p.c. of total output and gross domestic investment was relatively small. In 1950, on the other hand, personal expenditure on consumer goods and services accounted for 66 p.c. of gross national expenditure while government expenditure was only 13 p.c. At the same time, gross domestic investment in housing, plant, equipment and inventories accounted for 23 p.c. of gross national expenditure.

**Personal Income and Expenditure.**—*Personal Income* is derived from national income by subtracting elements of national income not paid out to persons, such as undistributed corporation profits, and adding transfer payments such as family allowances, relief payments, etc.

Personal direct taxes took approximately 5 p.c. of personal income in 1950 and 6 p.c. in 1949, as compared with 9 p.c. in 1944. On the other hand, personal expenditure on consumer goods and services absorbed 88 p.c. in 1950 and only 69 p.c. in 1944. A definite shift in the pattern of consumer spending occurred during this period. The proportion of expenditure for durable goods, such as automobiles and refrigerators, which were in short supply during the War, rose from 5 p.c. in 1944 to 11 p.c. in 1950. At the same time, the proportion spent for services declined from 32 p.c. to 29 p.c.; the proportion spent for food and clothing also declined. Personal saving in 1949 and 1950 showed a marked drop from 1944, when shortages existed in many lines of consumer goods and the government system of war finance encouraged intensive savings programs.

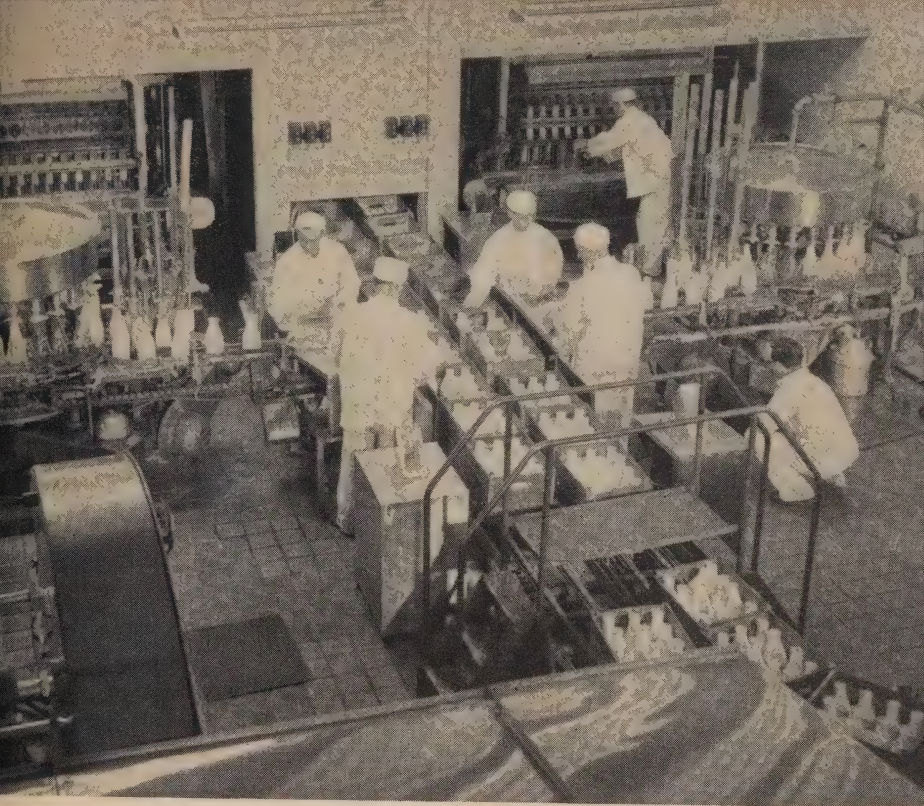
### *Personal Income, by Sources, 1929, 1933, 1939, 1944 and 1946-50*

(Millions of Dollars)

| Source                                                                                          | 1929         | 1933         | 1939         | 1944         | 1946         | 1947          | 1948          | 1949          | 1950          |
|-------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| Salaries, wages and supplementary labour income.....                                            | 2,929        | 1,778        | 2,575        | 4,940        | 5,323        | 6,221         | 7,170         | 7,761         | 8,271         |
| Less: Employer and employee contributions to social insurance and government pension funds..... | -27          | -21          | -35          | -133         | -149         | -181          | -224          | -239          | -259          |
| Military pay and allowances.....                                                                | 8            | 8            | 32           | 1,068        | 340          | 83            | 82            | 115           | 137           |
| Net income of agriculture and other unincorporated business.....                                | 1,015        | 396          | 899          | 2,010        | 2,161        | 2,350         | 2,953         | 2,969         | 2,942         |
| Interest, dividends and net rental income of persons <sup>1</sup> .....                         | 639          | 501          | 620          | 858          | 980          | 1,078         | 1,099         | 1,201         | 1,314         |
| Transfer payments from governments to persons.                                                  | 93           | 181          | 229          | 259          | 1,106        | 839           | 863           | 950           | 1,012         |
| <b>Totals, Personal Income.....</b>                                                             | <b>4,657</b> | <b>2,843</b> | <b>4,320</b> | <b>9,002</b> | <b>9,761</b> | <b>10,390</b> | <b>11,943</b> | <b>12,757</b> | <b>13,417</b> |

<sup>1</sup> Includes charitable donations from corporations.





*Bottle-filling room in a city dairy. About 25 p.c. of the total milk production is sold in fluid form. Per capita consumption amounts to a little under one pint a day.*

### *Disposition of Personal Income, 1929, 1933, 1939, 1944 and 1946-50*

(Millions of Dollars)

| Item                                                           | 1929  | 1933  | 1939  | 1944  | 1946  | 1947   | 1948   | 1949   | 1950   |
|----------------------------------------------------------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Personal Direct Taxes—                                         |       |       |       |       |       |        |        |        |        |
| Income taxes.....                                              | 34    | 38    | 62    | 772   | 711   | 695    | 717    | 677    | 612    |
| Succession duties.....                                         | 16    | 13    | 28    | 39    | 54    | 61     | 58     | 55     | 63     |
| Miscellaneous.....                                             | 18    | 18    | 22    | 27    | 31    | 35     | 47     | 57     | 60     |
| Totals, Direct Taxes...                                        | .68   | 69    | 112   | 838   | 796   | 791    | 822    | 789    | 735    |
| Personal expenditure on<br>consumer goods and<br>services..... | 4,393 | 2,887 | 3,904 | 6,187 | 7,977 | 9,173  | 10,112 | 10,963 | 11,862 |
| Personal Saving—                                               |       |       |       |       |       |        |        |        |        |
| Net changes in farm in-<br>ventories.....                      | -129  | -33   | 60    | -103  | -57   | -79    | -65    | -72    | 131    |
| Other.....                                                     | 325   | -80   | 244   | 2,080 | 1,045 | 505    | 1,074  | 1,077  | 689    |
| Totals, Personal Saving                                        | 196   | -113  | 304   | 1,977 | 988   | 426    | 1,009  | 1,005  | 820    |
| Totals, Personal<br>Income.....                                | 4,657 | 2,843 | 4,320 | 9,002 | 9,761 | 10,390 | 11,943 | 12,757 | 13,417 |



A batch of alkali-cellulose, which will eventually be transformed into rayon fabric, cellulose film or sponges, comes out of a shredding machine.

## • Survey of Production

The scope of this section is limited to the actual production of commodities. The activities of such industries as transportation, communication, trade, finance and service are entirely excluded. This is in contrast to the scope of *Gross National Production* which encompasses all industries. Net production or "value added" is generally considered the most significant measure of production and is consequently stressed in the following analysis. It is obtained by deducting from the total value of output, the cost of materials, fuel, purchased electricity and process supplies consumed in the production process.\*

In 1949, net value of commodity production in Canada rose to a new peak of nearly \$10,000,000,000, a gain of about 7 p.c. over 1948. Nearly \$75,000,000 of this increase was due to the partial inclusion of Newfoundland's production in the 1949 total. Higher prices accounted for the greater part of the advance over 1948, although there was some increase in volume in the majority of industries. Estimates for 1950 and 1951 indicate a further expansion of production in most industries. The volume index of industrial production rose more than 7 p.c. between 1949 and 1950 and wholesale prices averaged about 6 p.c. higher. Again, during the first nine months of 1951, the production index averaged 10 p.c. higher than in the comparable period of 1950, and prices rose 15 p.c. in the same comparison. Although the value of agricultural production dropped moderately in 1950 as compared with 1949, near-record grain crops in 1951 should result in a considerable advance in the value of farm output.

\*A description of the method used in computing gross and net production figures is given in the *Survey of Production* issued by the Dominion Bureau of Statistics.



Higher price levels, sustained demand for consumer goods at home and abroad, rapid industrial development and the expansion of defence industries have all contributed to the high production in recent years.

**Industrial Distribution.**—Between 1946 and 1949 the total net value of Canadian commodity production rose nearly 55 p.c. Most industrial groups contributed to that increase, though the greatest advances were made in the construction, mining and manufacturing fields. The high level of building activity and the rapid advance in construction costs resulted in an increase of 161 p.c. during the period, higher prices and expanded physical output effected a 90 p.c. gain in the value of mineral output, and in manufacturing the greater part of the 54 p.c. increase was due to higher prices although volume of output rose nearly 15 p.c. The electric-power industry expanded steadily over the period but at a more moderate pace. The value of output in the agriculture and forestry groups was slightly lower in 1949 than in 1948 but was still far above the 1946 levels. The value of fisheries production was fairly stable over the period while returns from trapping showed a tendency to decline.

### Net Value of Production, by Industries, 1946-49

| Industry                                                 | 1946          | 1947          | 1948          | 1949                       |
|----------------------------------------------------------|---------------|---------------|---------------|----------------------------|
|                                                          | \$            | \$            | \$            | \$                         |
| Agriculture.....                                         | 1,468,027,000 | 1,507,519,000 | 2,045,693,000 | 2,027,304,000              |
| Forestry.....                                            | 711,026,833   | 953,918,800   | 1,070,439,308 | 1,056,403,789 <sup>1</sup> |
| Mining.....                                              | 422,074,303   | 552,309,949   | 727,950,430   | 800,217,336 <sup>1</sup>   |
| Electric power.....                                      | 220,511,067   | 232,245,222   | 248,963,255   | 270,126,982 <sup>1</sup>   |
| Fisheries.....                                           | 107,908,162   | 110,088,471   | 127,212,417   | 119,315,946                |
| Trapping.....                                            | 31,077,867    | 16,842,966    | 20,178,077    | 15,296,615                 |
| Less duplication in forest production <sup>2</sup> ..... | 73,516,000    | 89,058,000    | 99,824,000    | 100,451,890                |
| Totals, Primary Production.....                          | 2,887,109,232 | 3,283,866,408 | 4,140,612,487 | 4,188,212,778              |
| Manufactures.....                                        | 3,467,004,980 | 4,292,055,802 | 4,940,369,190 | 5,330,566,434 <sup>1</sup> |
| Construction.....                                        | 408,695,662   | 601,539,452   | 829,644,000   | 1,066,649,000 <sup>1</sup> |
| Custom and repair.....                                   | 213,273,000   | 247,086,000   | 279,211,000   | 292,277,000                |
| Totals, Secondary Production.....                        | 4,088,973,642 | 5,140,681,254 | 6,049,224,190 | 6,689,492,434              |
| Less duplication in manufactures <sup>3</sup> .....      | 518,517,965   | 737,453,025   | 838,363,278   | 880,638,436 <sup>1</sup>   |
| Grand Totals.....                                        | 6,457,564,909 | 7,687,094,637 | 9,351,473,399 | 9,997,066,776              |

<sup>1</sup> Includes Newfoundland.

<sup>2</sup> Duplication eliminated between the agriculture and forestry totals; both items include the value of forest products obtained from farm lots.

<sup>3</sup> This item includes sawmills, pulp and paper mills, etc., also included under other headings above.

**Provincial Distribution.**—Substantial increases in net value of output were shown by all provinces and territories (Newfoundland not included in this comparison) during the post-war period. The gains were highest in Ontario, Alberta and Saskatchewan, output in each of these Provinces advancing about 60 p.c. Between 1946 and 1949, net value of output in the Maritime Provinces increased decidedly less than for the country as a whole, this also being true, although to a lesser extent, of Quebec and British



Columbia. Ontario showed the greatest relative gain in this comparison, while the Prairie Provinces advanced at about the same rate as the country as a whole. In 1948, net value of production reached a new maximum in all provinces and territories. During 1949, Ontario, Quebec and Nova Scotia made further substantial progress, while Manitoba and British Columbia showed small recessions. Production in the other four provinces and in the territories rose slightly.

### Net Value of Production, by Provinces, 1946-49

| Province or Territory                | 1946                 | 1947                 | 1948                 | 1949                    |
|--------------------------------------|----------------------|----------------------|----------------------|-------------------------|
|                                      | \$                   | \$                   | \$                   | \$                      |
| Newfoundland.....                    | .....                | .....                | .....                | 74,882,279 <sup>1</sup> |
| Prince Edward Island.....            | 22,144,302           | 19,493,244           | 27,744,734           | 28,384,606              |
| Nova Scotia.....                     | 197,329,638          | 198,468,760          | 251,872,883          | 271,185,430             |
| New Brunswick.....                   | 162,700,528          | 183,102,027          | 213,325,278          | 218,423,088             |
| Quebec.....                          | 1,775,525,027        | 2,050,946,288        | 2,430,339,997        | 2,615,449,241           |
| Ontario.....                         | 2,557,193,323        | 3,148,517,907        | 3,758,300,952        | 4,114,751,839           |
| Manitoba.....                        | 329,300,254          | 366,588,138          | 486,141,707          | 477,290,300             |
| Saskatchewan.....                    | 388,858,319          | 458,040,217          | 611,642,712          | 618,211,097             |
| Alberta.....                         | 434,902,340          | 493,641,826          | 669,662,346          | 694,863,825             |
| British Columbia.....                | 583,012,640          | 761,385,115          | 891,709,706          | 869,200,883             |
| Yukon and Northwest Territories..... | 6,598,538            | 6,911,115            | 10,733,084           | 14,424,188              |
| <b>Canada.....</b>                   | <b>6,457,564,909</b> | <b>7,687,094,637</b> | <b>9,351,473,399</b> | <b>9,997,066,776</b>    |

<sup>1</sup> Excludes agriculture, fisheries, trapping and custom and repair.

**Provincial Movements.**—In *Prince Edward Island*, the net value of agricultural production, which is the main source of income, showed little change in 1949 as compared with the previous year. A decline in the output of fisheries was offset by increased construction activity. More than half the increase in the value of output in *Nova Scotia* was accounted for by a rise in construction. Declines were recorded in forestry and fisheries while other industries advanced moderately. In *New Brunswick*, a drop in the value of output of the important forestry industry was offset by a gain in the value of construction.

In *Quebec*, the manufacturing group, which contributes (exclusive of duplication) about one-half of the Province's total net output, recorded a gain of nearly 8 p.c. in 1949. The value of construction advanced more than 34 p.c. A decline in the value of forestry was offset by an increase in mineral production, while agriculture showed little change.

In *Ontario*, all the principal industries except forestry showed a higher value of output during 1949. Manufactures (exclusive of processing industries), which accounted for 59 p.c. of total provincial net output, rose 9 p.c. compared with 1948. The value of construction increased more than 27 p.c., mining nearly 16 p.c. and agriculture and electric power each about 4 p.c. As in most other provinces, the value of forestry operations declined slightly.

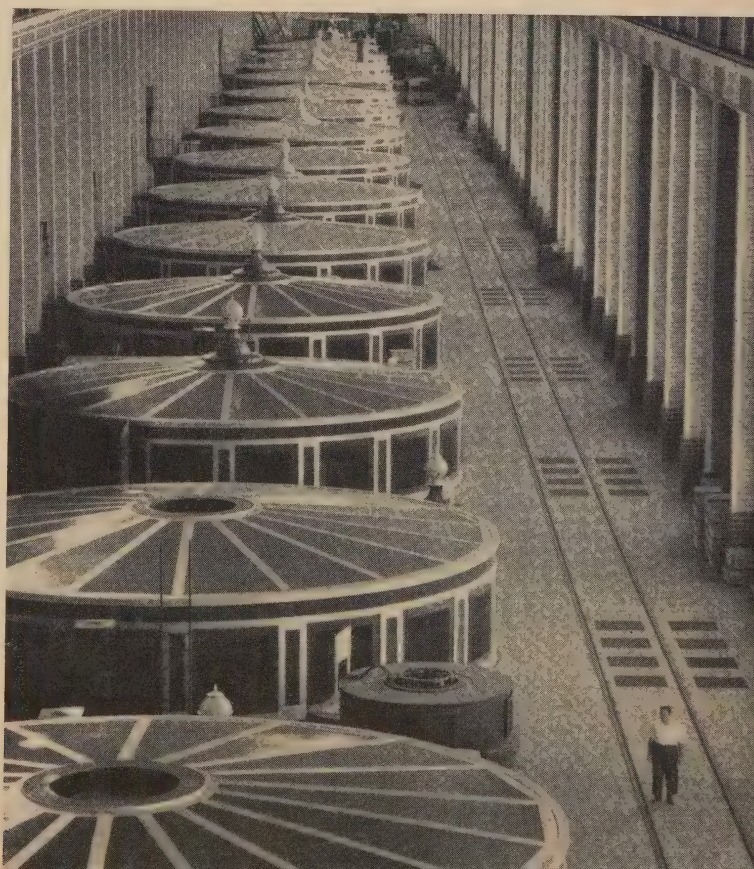
Agriculture continued to dominate the economy of the *Prairie Provinces* in 1949. In Manitoba, Saskatchewan and Alberta, the industry accounted for 42 p.c., 77 p.c. and 52 p.c., respectively, of total net output. In *Manitoba* a

decline of about 12 p.c. in agricultural output was mainly responsible for the drop in the total net output of the Province. In *Saskatchewan*, a drop in the value of mining was more than offset by advances in agriculture and construction. The value of mineral output jumped sharply in *Alberta* and, together with a considerable advance in construction, resulted in a higher net output despite a drop in the value of agriculture.

Net value of production in *British Columbia* fell off slightly during 1949. Declines were recorded in forestry, fisheries, trapping, mining and manufactures. The value of mineral output in 1949 was 16 p.c. lower than in 1948. By contrast, the net value of construction rose nearly 19 p.c.

**Per Capita Output.**—The per capita net value of production in the nine provinces (excluding Newfoundland) advanced to \$752 in 1949 from the 1948 total of \$726. Per capita output in Ontario rose to \$933 to remain the highest in the country. Alberta took second place from British Columbia with a 1949 per capita production of \$798. British Columbia was third with \$780 and Saskatchewan remained in fourth position with \$718. Quebec with \$673 displaced Manitoba in fifth position when the latter's per capita output declined to \$613. New Brunswick, Nova Scotia and Prince Edward Island followed in seventh, eighth and ninth positions, respectively. Appreciable gains over 1948 were recorded by Ontario, Quebec and Nova Scotia, while per capita production fell off somewhat in Manitoba and British Columbia. The other provinces showed little change.

Giant power Generators at Beauharnois, near Montreal. Plans call for the doubling of the present installed capacity at Beauharnois, which totalled over 1,000,000 h.p. at the end of 1951.





*The great wheat-growing plains of southern Saskatchewan.*



# Agriculture

**A**GRICULTURE still remains the basic Canadian industry, although Canada is no longer so predominantly agricultural as it was two decades ago. The demand for new products during two world wars and the post-war demands for essential and varied commodities have hastened industrial development, until now Canada ranks high among the world's producers of manufactured goods. This change in the national economy has heightened rather than lessened the importance of agricultural production, and the output of Canadian farms has greatly increased.

The agricultural industry employs, directly, one-quarter of the gainfully occupied population of Canada and, indirectly, provides employment for many more Canadian workers. The raw products of the farm must in many instances be further processed in meat-packing plants, in canning factories, in milk, cheese and butter establishments, or in flour mills. The final products must in turn be graded, packaged, transported and marketed. Further employment is provided in producing farm equipment and supplies—machinery and implements, fertilizers and pesticides.

Agriculture is the country's most decentralized industry. Its production comes from 733,000 farms spread from ocean to ocean and ranging in size from the few acres of the market gardener to the large wheat farms of the prairies, which average over 400 acres, and the immense ranch lands in the foothills of the Rocky Mountains.

**Types of Farming.**—There are many types of farming carried on in Canada. At the one extreme is wheat production, which predominates in the Prairie Provinces of Alberta, Saskatchewan and Manitoba; at the other are the intensified operations connected with small fruits and market gardening such as are carried on in southern Ontario and in parts of British Columbia.

Four important agricultural regions are readily distinguished. Agricultural operations in British Columbia are carried on principally in the mountain valleys and on the coastal plains and include dairying, poultry-raising, the growing of apples and small fruits, seed-growing and market-gardening. Cattle ranching on a large scale is carried on in the areas between the mountain ranges of the interior.

The Prairie Provinces of Alberta, Saskatchewan and Manitoba form a block which includes about two-thirds of the occupied farm land of the country. The area is used chiefly for grain production and it is on these prairie farms that Canada's spring wheat is harvested. In the eastern part of the Prairies is an important dairying area where cheese production predominates. The climate is more extreme than in other agricultural areas—the frost-free period is fairly short and rainfall is limited and variable. The choice of farm enterprise is severely restricted by nature and distance from markets.

The Provinces of Quebec and Ontario comprise a central region. Most of the agricultural portions of these Provinces are favoured with a temperate climate. Here are located the densest centres of population, and local conditions and proximity to markets are conducive to varied types of farming.



*Cutting head lettuce in southern Ontario.*

Thus, near many of the large urban centres there are fairly well defined areas where farmers cater to city demand for dairy produce, market-garden truck, potatoes and other vegetables, and poultry. In the general inter-lake region of Ontario, one of the earliest settled portions of the Province, there are several large areas where beef-raising is important and where long-established dairying districts are located. The mild climate of the Niagara Peninsula favours fruit-growing and vegetable production, while the counties on the shores of Lake Erie produce market-garden crops, cigarette tobacco, sugar-beets, corn, orchard crops, and produce for canning.

Agricultural production in the Province of Quebec is concentrated on both sides of the St. Lawrence River where the climatic conditions are favourable for dairying, poultry-raising and hog-raising. There is, in addition, a fringe of farming somewhat north of this. In a fairly well defined area tobacco is grown, largely of the pipe and cigar type. In the vicinity of Montreal, there is a highly specialized area where small fruits, apples, vegetables and poultry are main enterprises. Some of the districts bordering the United States specialize in dairy farming, and maple syrup and sugar are important additions to the farm income in many sections.

In the eastern Provinces of Prince Edward Island, Nova Scotia and New Brunswick the climate is generally temperate, favouring dairying, mixed farming, potato-growing, and the growing of apples and other fruits. The agriculture of Newfoundland is chiefly local in character.



As Canada's agriculture is varied, it is able to produce the bulk of its own foods. Imported foods include mainly those tropical and semi-tropical commodities that cannot be grown in Canada—tea, coffee, cocoa, rice and citrus fruits. Some fresh fruits and vegetables are imported during the off-season.

**Source of Farm Income.**—From the time Canada became an important exporter of agricultural produce, wheat has been a major source of income. However, since 1926, the first year for which adequate comparable information is available, wheat and grains have become relatively less important as a source of farm income, although their dollar value has increased. The sale of all live-stock products now provides a greater percentage of the cash income. Some of the percentage change was brought about by overseas demand for foodstuffs during the War and post-war years, and naturally such figures vary from year to year depending on the output of all commodities and the demand for specific ones.

**Export Trade.**—The agricultural production of Canada is greater than domestic needs, and farming adapted to export trade has consequently been a natural development. Not only is Canada a large exporter but, according to a study by the United Nations, it is one of the few countries to maintain output at a level above that of 1934-38.

Canada's exports include wheat and flour, animals, meat and other animal products, dairy and poultry products, apples and other fruits, potatoes (both seed and table stock), canned and processed foods of many kinds, dried beans, field and garden seed and tobacco. For fifty years or more, the Government has been steadily establishing and improving standards of quality for export commodities. These standards are widely recognized abroad and, because they are strictly maintained, many Canadian foods and agricultural products command premium prices in world markets. Canada also exports numbers of live stock for breeding purposes, under a health-inspection arrangement that makes them acceptable to all countries.

**Federal Research and Experimentation.**—The Federal Department of Agriculture conducts a comprehensive program of research and experimentation and interprets the results to the farmer in a practical manner. This

Experts inspecting  
wheat plots  
the Ontario  
Government Ex-  
perimental Farm  
Edgetown.





work is carried on in the research and experimental unit and laboratories at Ottawa, and throughout Canada in laboratories and on experimental farms, stations, substations and illustration stations, so that reliable information applicable to widely varying soil and climatic conditions and types of farming may be obtained and made available to farmers in the different regions.

Problems are studied relating to the ravages of pests and diseases affecting plants and animals, the deterioration of plant and animal products through the invasion of fungi and bacteria, the nutritional requirements of animals and plants, and the chemistry and microbiology of soils and dairy products. Experimental work is conducted in connection with the production and management of live stock, poultry, plants and plant products; with the operation of farm machines; the relative merits of cultural practices; the problems of drainage and irrigation; and the construction and operation of farm buildings. The improvement of agricultural products is encouraged. Regulations are enforced relating to contagious disease control, to the inspection of meat for interprovincial and export shipment, and to the control of insecticide, pesticide and fertilizer standards. Grading and inspection services are promoted for live stock and live-stock products, poultry, eggs, ranched furs, dairy products, fruit, vegetables, canned goods, maple products and honey. Market reporting services for these commodities are maintained so that producer and consumer may be advised regarding market requirements, prices and transportation facilities.

All the experimental and research work is co-ordinated with the special research projects undertaken by the National Research Council and by universities and agricultural colleges.

A matter of grave concern to the future of agriculture is the loss of soil through wind and water erosion and its decreasing productivity through improper methods of cultivation. Much is being done in Western Canada through activities under the Prairie Farm Rehabilitation Act and in Eastern Canada under the Maritime Marshland Rehabilitation Act, but these are large-scale undertakings. The need is for action by individual farmers on their own farms. Soil conservation is under constant study by the Department and methods are recommended, directed toward keeping the soil where it belongs—on the farm—and keeping it productive.

**Legislation to Assist the Farmer.**—A number of Acts passed by the Federal Parliament in recent years directly assist the farmer to meet many of his problems. The most important of these are described below.

*Agricultural Prices Support Act, 1944.*—Under this Act, the Federal Government, acting through a Board, may stabilize the price of any agricultural product (except wheat which is handled separately) by outright purchase or by underwriting the market through guarantees or deficiency payments.

*Agricultural Products Board Act, 1951.*—This Act authorizes the establishment of a Board to buy, sell, export and import agricultural products when directed by the Governor in Council. When so designated by the Agricultural Prices Support Board, the Board may act as agent for the purchase and disposal of agricultural products under provisions of the Agricultural Prices Support Act.



he St. Mary Dam, key structure in the gigantic St. Mary-Milk River irrigation development in southern Alberta. The dam, officially opened in the summer of 1951, was built by the Government of Canada at a cost of \$7,000,000.

formerly semi-arid land in the southern prairies blossoms under irrigation. Here plastic siphons take water from an irrigation ditch to a lush sugar-beet field. ►



*The Agricultural Products Co-operative Marketing Act, 1939.*—This Act aids farmers in pooling the returns from the sale of their products by guaranteeing initial payments, thus assisting in orderly marketing.

*Agricultural Products Marketing Act, 1949.*—A number of provincial governments have marketing schemes which regulate the marketing of farm products produced and marketed within the province. Under this Act such provincial marketing legislation may be applied to cover the marketing of agricultural products outside the province and in export trade.

*Prairie Farm Rehabilitation Act, 1935.*—Land conservation activities are being continued under the Prairie Farm Rehabilitation Act, which was

passed in April 1935 "to provide for the rehabilitation of drought and soil-drifting areas in the Provinces of Manitoba, Saskatchewan and Alberta". In accordance with the terms and intentions of this Act, a rehabilitation program has been organized throughout the drier regions of the Prairie Provinces (comprising over 400,000 sq. miles located in southwestern Manitoba, southern Saskatchewan and southeastern Alberta) which has as its main objective the adjustment of prairie agriculture to the conditions imposed by severe droughts such as those of the 1930-37 period. This rehabilitation program covers three main phases—water development, land utilization and promotion of better farming practices. The greater part of the work has been in connection with the construction of water-development projects ranging in size from small reservoirs on individual farms to irrigation projects involving thousands of acres. The construction of community pastures on sub-marginal lands has also been important.

*Land Reclamation.*—While operations under the Prairie Farm Rehabilitation Act are confined to the Prairie Provinces, land reclamation and development work is being carried out elsewhere by the Department of Agriculture to meet special situations. Several projects relating to the settlement of veterans have been undertaken in British Columbia and assistance has been granted to the Maritime Provinces for emergency repairs of the protective dykes in the coastal marshland areas. The Maritime Marshland Rehabilitation Act, passed in 1948, provides for a thorough-going program of dykeland reconstruction, with provincial co-operation.

*Prairie Farm Assistance Act, 1939.*—Under the Prairie Farm Assistance Act, the Federal Government makes cash payments each year to farmers in areas within the Prairie Provinces which have had low crop yields because of drought or other causes. The award to a farmer is based upon the cultivated acreage of the farm and the average yield of wheat in the township in which the farm is located, and the maximum amount payable on any one farm is \$500. Contributory payments are made by the farmers in the form of a levy of one percent on the value of all grains marketed. As at Mar. 31, 1951, \$134,870,892 had been paid out in benefits and \$51,538,367 collected from the levy.

*Prairie Grain Producers' Interim Financing Act, 1951.*—This Act, which came into force Jan. 15, 1952, provides short-term credit to grain producers in the Prairie Provinces, who, because of congested delivery points or inability to complete harvesting of their grain, are in need of credit until their grain can be delivered. Individual advances can be made to a maximum of \$1,000.

*Potato Warehouses.*—A policy was inaugurated in 1947 whereby the Federal Department of Agriculture provides cash assistance in respect to potato warehouses constructed by co-operative associations. The assistance is conditional upon the associations providing an agreed amount; the Federal Government and the provincial government concerned share the remainder. All warehouses must have the approval of a Dominion-Provincial Committee set up for the purpose in each province concerned.

*Cheese and Cheese Factories.*—The Cheese and Cheese Factory Improvement Act was passed in 1939 to encourage the improvement of cheese and cheese factories. Under the provisions of this Act a quality premium of one cent per pound is paid on cheddar cheese scoring 93 points and two cents per pound on cheese scoring 94 points or over.



Agriculture is Prince Edward Island's chief industry and potatoes one of the most important crops. A large part of this crop is usually shipped outside the Province as seed.



The Act provides for the payment of not over 50 p.c. of the amount actually expended for new material, new equipment and labour utilized in constructing, reconstructing and equipping cheese factories eligible for a subsidy. The Act also provides for paying 50 p.c. of the cost actually expended in efficiently insulating and enlarging cheese-curing rooms, either with or without mechanical refrigeration. In order to standardize the size of cheese manufactured in the various factories, the Act provides for paying 50 p.c. of the cost of replacing equipment necessary for this purpose.

*Farm Credit.*—To provide adequate farm credit, the Canadian Farm Loan Board at present carries on lending operations throughout Canada. Loans may be granted for farm improvements, including the erection of buildings, the purchase of live stock and equipment, farm operating expenses, the purchase of farm lands and the refinancing of existing farm indebtedness. Second-mortgage loans cannot be made for the purpose of purchasing farm lands. For intermediate term credit, the Federal Parliament amended the Bank Act (Aug. 9, 1944) and passed a "companion" Act, the Farm Improvement Loans Act, 1944.

The main forms of financial assistance provided at the present time by the Federal Government to farmers for housing purposes include: the Canadian Farm Loan Board outlined above, the National Housing Act, the Farm Improvement Loans Act, and the Veterans' Land Act.

**Interest in the Food and Agriculture Organization of the United Nations.**—Canada, as an important agricultural producer and exporter, has maintained a close interest in FAO, and has played a prominent role in its development. A Canadian was a member of the original Executive Committee of the Organization, and Canada has had continuous representation on the eighteen-member Council of FAO which replaced this Committee. Canadians are on most of the standing advisory technical committees, and have taken part in many missions sent to undeveloped countries by the Organization. Canada has been able to provide technical and scientific assistance to other nations and, on the other hand, has benefited from technical and statistical information supplied by FAO, and through national and international policies relating to agricultural production and distribution.

## Statistics of Agriculture\*

**Income of Farm Operators.**—Net income of farmers from farming operations in 1950 amounted to \$1,461,735,000, almost 10 p.c. below the 1949 figure of \$1,615,834,000 and nearly 12 p.c. below the record high of \$1,650,699,000 realized in 1948. The decline resulted from a substantial drop in cash income, a smaller value of income in kind and a continued increase in farm operating expenses and depreciation charges. This income figure includes supplementary payments made to farmers under the provisions of the Prairie Farm Assistance Act (*see* p. 142).

### Net Income of Farm Operators from Farming Operations, 1948-50

| Item                                                                | 1948             | 1949             | 1950             |
|---------------------------------------------------------------------|------------------|------------------|------------------|
|                                                                     | \$'000           | \$'000           | \$'000           |
| 1. Cash income.....                                                 | 2,463,148        | 2,494,781        | 2,223,522        |
| 2. Income in kind.....                                              | 376,874          | 349,483          | 337,311          |
| 3. Value of changes in inventory.....                               | -64,684          | -71,652          | +130,788         |
| 4. <b>Gross Income (Items 1 + 2 + 3).....</b>                       | <b>2,775,338</b> | <b>2,772,612</b> | <b>2,691,621</b> |
| 5. Operating expenses and depreciation charges..                    | 1,145,387        | 1,174,406        | 1,243,692        |
| 6. Net income (excluding supplementary payments (Items 4-5).....    | 1,629,951        | 1,598,206        | 1,447,929        |
| 7. Supplementary payments.....                                      | 20,748           | 17,628           | 13,806           |
| 8. <b>Net Income of Farm Operators from Farming Operations.....</b> | <b>1,650,699</b> | <b>1,615,834</b> | <b>1,461,735</b> |

Annual estimates of cash income from the sale of farm products, the most important income component of net income, represents gross returns from all products sold off farms valued at prices received by farmers. The estimates include those federal and provincial government payments that farmers receive as subsidies to prices, but they do not include the supplementary payments under the Prairie Farm Assistance Act. For 1950 this cash income, including grain equalization and participation payments for previous years' crops, is estimated at \$2,223,522,000, which is 10.9 p.c. below the record figure of \$2,494,781,000 for 1949. The decline is largely attributable to a drop in the cash receipts from the sale of grains and substantially smaller grain equalization and adjustment payments. Less than \$50,000,000 was paid to prairie farmers in the form of participation and equalization payments during 1950 as against approximately \$220,000,000 in 1949. A lowering of the initial price to producers and a poor-quality crop caused by severe frosts in the Prairie Provinces in August combined to offset increased marketings during 1950 and gave a cash income from the sale of wheat of \$380,423,000, almost 20 p.c. below the returns realized in 1949. Commencing Aug. 1, 1950, the initial price to producers of No. 1 Northern wheat in store at the Lakehead was lowered from \$1.75 to \$1.40 per bu.

Receipts from the sale of coarse grains during 1950 were also below the 1949 level, partly because of smaller marketings and lower-grade crops. In addition, prairie farmers sold their coarse grains under the terms of the Government compulsory marketing scheme instituted on Aug. 1, 1949, under

\* Exclusive of Newfoundland. Figures for that Province will not be included until the results of the 1951 Census become available.





*A Manitoba farmer using a jeep to pull a combine. Modern equipment has not only made the grain farmer largely independent of temporary harvest labour but has also enabled him greatly to expand production.*

which they received initial prices only at the time of delivery. These prices were based on 60 cents per bu. for No. 1 Feed oats and 87 cents per bu. for No. 1 Feed barley in store Fort William-Port Arthur and were lower than the free market prices that prevailed during the first seven months of 1949. However, in addition to these initial prices obtained at time of delivery, farmers also received producer participation certificates which entitled them to share at a later date any surpluses accumulated by the Canadian Wheat Board through the sale of these grains to ultimate consumers. During the last quarter of 1950, the Board distributed approximately \$42,000,000 in the form of participation payments for the 1949 crops of oats and barley.

The increase in live-stock returns from \$829,044,000 in 1949 to \$895,947,000 in 1950 was largely a result of higher average prices for all live stock except hogs. Higher prices for cattle, which more than offset slightly lower marketings, reflected a continuing strong demand for Canadian beef in the United States. Higher prices for sheep and lambs also more than compensated for a decline in marketings. The negotiation of a United Kingdom-Canada bacon contract for 1950 at prices below those received in 1949 resulted in lower average hog prices which more than offset an increase in marketings. The income from this source was \$316,901,000 as against \$327,879,000 in 1949.



Farm operating expenses and depreciation charges totalling \$1,243,692,000 were almost 6 p.c. above the 1949 level. The increase in the year-end, farm-held stocks of grain in 1950 was greater than the decline in year-end live-stock numbers resulting in an over-all inventory increase for the first time since 1942.

### *Cash Income from the Sale of Farm Products, by Provinces, 1948-50*

| Province                  | 1948             | 1949             | 1950             |
|---------------------------|------------------|------------------|------------------|
|                           | \$'000           | \$'000           | \$'000           |
| Prince Edward Island..... | 22,295           | 20,860           | 22,106           |
| Nova Scotia.....          | 36,990           | 36,636           | 39,556           |
| New Brunswick.....        | 45,634           | 44,845           | 46,699           |
| Quebec.....               | 356,471          | 349,358          | 361,651          |
| Ontario.....              | 664,234          | 677,965          | 679,437          |
| Manitoba.....             | 247,536          | 242,845          | 195,970          |
| Saskatchewan.....         | 533,987          | 560,718          | 407,604          |
| Alberta.....              | 452,350          | 460,332          | 368,790          |
| British Columbia.....     | 103,651          | 101,222          | 101,709          |
| <b>Totals.....</b>        | <b>2,463,148</b> | <b>2,494,781</b> | <b>2,223,522</b> |

### *Cash Income from the Sale of Farm Products, by Sources, 1950*

| Source                                    | Cash Income | Source                                     | Cash Income      |
|-------------------------------------------|-------------|--------------------------------------------|------------------|
|                                           | \$'000      |                                            | \$'000           |
| Grains, seeds and hay.....                | 563,943     | Miscellaneous farm products....            | 41,923           |
| Vegetables and other field crops...       | 153,831     | Forest products sold off farms...          | 74,728           |
| Live stock.....                           | 895,947     | Fur farming.....                           | 7,624            |
| Dairy products.....                       | 327,742     |                                            |                  |
| Fruits.....                               | 40,621      |                                            |                  |
| Eggs, wool, honey and maple products..... | 117,163     | <b>Cash Income from Farm Products.....</b> | <b>2,223,522</b> |



*Tobacco, after removal from the kiln, stored in a packing barn, ready for the appraiser's visit.*

Good stock and good feeding produce good results. In 1950, farmers realized \$316,901,000 in cash income from the sale of hogs.



**Farm Prices.**—Little change was shown in the annual index of farm prices\* of agricultural products for 1950 as compared with 1948 and 1949. During 1951, the monthly index climbed from 273·8 in January to 307·2 in July, due to rising live-stock prices. This was the highest monthly figure ever recorded. The drop in the August index of 22 points is attributable in large part to a decline in live-stock prices, especially for hogs, and the fact that since Aug. 1, 1951, the prices for wheat, oats and barley in the Prairie Provinces are initial prices only.

\*A description of this index, its coverage and the methods used, will be found in the D.B.S. *Quarterly Bulletin of Agricultural Statistics* for October-December, 1946.

### Index Numbers of Farm Prices of Agricultural Products, by Provinces, 1946-51

(1935-39 = 100)

| Year         | P.E.I. | N.S.  | N.B.  | Que.  | Ont.  | Man.  | Sask. | Alta. | B.C.  | Total |
|--------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1946 Av..... | 194·2  | 191·1 | 207·7 | 196·9 | 187·9 | 209·4 | 217·3 | 219·9 | 199·2 | 204·1 |
| 1947 Av..... | 180·1  | 184·6 | 199·6 | 213·7 | 202·1 | 225·9 | 226·1 | 231·9 | 207·1 | 215·8 |
| 1948 Av..... | 236·6  | 214·1 | 250·4 | 265·6 | 258·6 | 259·6 | 247·1 | 262·9 | 240·2 | 255·8 |
| 1949 Av..... | 204·1  | 210·5 | 220·5 | 261·3 | 257·8 | 262·8 | 248·8 | 265·6 | 245·1 | 255·4 |
| 1950 Av..... | 188·3  | 203·4 | 216·1 | 260·4 | 264·7 | 274·4 | 251·4 | 275·9 | 244·4 | 260·4 |





Meat-packing establishments in Canada operate under Government inspection assuring the Canadian public adequate stocks of wholesome meats and meat products.

*Index Numbers of Farm Prices of Agricultural Products, by Provinces, 1946-51—concluded*

| Year and Month | P.E.I. | N.S.  | N.B.  | Que.  | Ont.  | Man.  | Sask. | Alta. | B.C.  | Total |
|----------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1950—          |        |       |       |       |       |       |       |       |       |       |
| Jan.....       | 175.9  | 195.4 | 201.2 | 249.1 | 242.8 | 260.4 | 243.8 | 257.6 | 224.7 | 244.8 |
| Feb.....       | 174.7  | 196.7 | 203.7 | 250.3 | 248.7 | 264.8 | 246.7 | 261.9 | 230.8 | 248.9 |
| Mar.....       | 180.1  | 199.6 | 208.7 | 251.8 | 252.8 | 267.9 | 249.4 | 266.9 | 232.9 | 252.4 |
| Apr.....       | 189.9  | 197.4 | 209.1 | 253.4 | 254.4 | 272.4 | 252.1 | 270.7 | 231.8 | 254.7 |
| May.....       | 176.2  | 197.2 | 207.2 | 252.6 | 257.6 | 269.8 | 252.7 | 270.9 | 234.4 | 255.5 |
| June.....      | 207.9  | 205.7 | 217.7 | 259.7 | 268.7 | 277.4 | 257.0 | 280.7 | 242.3 | 264.1 |
| July.....      | 200.7  | 208.8 | 229.5 | 264.5 | 274.3 | 280.9 | 259.5 | 282.9 | 249.0 | 268.1 |
| Aug.....       | 217.5  | 217.2 | 230.5 | 265.4 | 274.6 | 286.1 | 268.5 | 296.4 | 256.9 | 274.0 |
| Sept.....      | 199.3  | 208.7 | 228.3 | 267.2 | 275.4 | 283.7 | 250.6 | 289.8 | 258.5 | 268.8 |
| Oct.....       | 183.3  | 206.6 | 225.8 | 263.8 | 269.4 | 274.5 | 243.9 | 275.5 | 255.8 | 261.3 |
| Nov.....       | 172.5  | 203.1 | 213.3 | 268.7 | 277.1 | 276.1 | 243.9 | 276.1 | 257.0 | 264.0 |
| Dec.....       | 181.3  | 204.7 | 217.7 | 278.0 | 280.3 | 279.0 | 248.9 | 281.3 | 259.2 | 268.7 |
| 1951—P         |        |       |       |       |       |       |       |       |       |       |
| Jan.....       | 184.6  | 208.5 | 220.9 | 279.4 | 284.6 | 283.3 | 251.9 | 295.6 | 254.0 | 273.8 |
| Feb.....       | 199.9  | 216.7 | 224.1 | 291.9 | 301.4 | 292.2 | 258.7 | 301.4 | 267.5 | 284.6 |
| Mar.....       | 203.2  | 220.6 | 230.3 | 302.0 | 313.1 | 302.2 | 265.5 | 309.2 | 273.0 | 293.6 |
| Apr.....       | 207.5  | 224.2 | 227.1 | 301.2 | 309.6 | 299.3 | 265.1 | 305.9 | 274.3 | 291.6 |
| May.....       | 207.9  | 227.2 | 229.4 | 302.4 | 311.0 | 298.6 | 265.1 | 307.3 | 271.9 | 292.4 |
| June.....      | 216.9  | 227.5 | 227.2 | 309.6 | 320.6 | 308.3 | 272.6 | 315.9 | 272.6 | 300.2 |
| July.....      | 225.4  | 236.9 | 238.7 | 318.8 | 332.1 | 310.9 | 273.5 | 319.2 | 292.7 | 307.2 |
| Aug.....       | 244.0  | 238.5 | 242.9 | 310.4 | 321.5 | 263.3 | 235.9 | 271.1 | 287.9 | 284.8 |
| Sept.....      | 242.9  | 244.6 | 253.6 | 308.0 | 319.4 | 272.5 | 234.9 | 276.4 | 309.8 | 283.9 |
| Oct.....       | 256.8  | 247.9 | 267.2 | 304.8 | 313.9 | 264.8 | 229.9 | 267.1 | 310.1 | 278.9 |
| Nov.....       | 312.7  | 265.6 | 320.0 | 305.4 | 312.9 | 260.1 | 222.8 | 259.0 | 312.4 | 277.3 |

## Field Crops

**Wheat.**—Canada's 1951 wheat crop, based on conditions at Oct. 31, was estimated at 562,000,000 bu. However, a substantial proportion of the western crop remained unthreshed at that date and full realization of the estimate depended jointly on the extent to which the unthreshed portion of the crop escaped injury from lengthy exposure and on the development of



conditions suitable for combining and threshing during the winter and spring months. While adverse weather had caused serious grade losses, the situation was better in this regard than in 1950 when the crop was heavily damaged by frost.

Taking into consideration the total carryover of 186,000,000 bu. of wheat at July 31, 1951, Canada will have an estimated total of 749,000,000 bu. for disposal during 1951-52. Should domestic disappearance approach the 150,000,000 bu. level, about 600,000,000 bu. will be available for export or for carryover at the end of the crop year. The Canadian sales quota under the International Wheat Agreement for 1951-52 is approximately 233,000,000 bu. By Nov. 27, total Canadian sales reported under the Agreement were 107,000,000 bu., 26,000,000 of which were reported as sales to the United Kingdom and 81,000,000 to other countries. The United Kingdom agreed in July 1951 to purchase 113,000,000 bu. of wheat (including 18,000,000 bu. of flour in wheat equivalent) from Canada under I.W.A. in 1951-52; this commitment together with the 81,000,000 bu. reported as sold to other countries totalled 194,000,000 bu. definitely committed under the Agreement up to Nov. 27. In other words, nearly 83 p.c. of Canada's quota under the Agreement had been committed in just under four months. At the time of writing (mid-December 1951) it seems evident that, providing transportation and storage difficulties can be overcome, the entire Canadian quota will be

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*Combining swathed grain near Red Deer, Alta.*



taken up. In addition, significant quantities of Class II wheat may be disposed of during the crop year; nearly 8,000,000 bu. of feeding grades moved to the United States in the three-month period, August–October 1951.

With a strong market in prospect and large supplies held in interior positions, it is apparent that the volume of wheat exports from Canada in 1951-52 will depend very largely on the facility with which transportation and storage systems are able to place wheat in seaboard positions. Among the factors impeding rapid movement from the interior are: (1) the extremely late harvest which shortened the normal autumn period of grain movement by both rail and water and caused congestion at many storage points; (2) the large proportion of grain grading damp and tough, throwing a heavy load on terminal drying facilities, and delaying the flow of grain through the terminals; (3) the substantial quantity of grain remaining unthreshed—particularly in Alberta and to a lesser extent in Saskatchewan and northwestern Manitoba—much of which will remain in the fields over winter and will not be threshed and delivered until spring. Considering these difficulties, it may be surmised that, despite the firm prevailing market, actual export movement will be limited and carryover of wheat at July 31, 1952, will be above the level of 1951.

### *Production, Imports and Exports of Wheat, Years Ended July 31, 1943-52*

NOTE.—Wheat flour has been converted into bushels of wheat at the uniform average rate of  $4\frac{1}{2}$  bu. to the barrel of 196 lb. of flour.

| Year ended July 31— | Production <sup>1</sup> | Imports of<br>Wheat<br>and Flour | Exports of<br>Wheat<br>and Flour |
|---------------------|-------------------------|----------------------------------|----------------------------------|
|                     | '000 bu.                | bu.                              | bu.                              |
| 1943.....           | 556,684                 | 3,023                            | 214,700,901                      |
| 1944.....           | 284,460                 | 432,931                          | 343,755,319                      |
| 1945.....           | 416,635                 | 404,547                          | 342,945,515                      |
| 1946.....           | 318,512                 | 74,765                           | 343,185,751 <sup>2</sup>         |
| 1947.....           | 413,725                 | 15,584                           | 239,420,837 <sup>2</sup>         |
| 1948.....           | 341,758                 | 824,677                          | 194,982,342 <sup>2</sup>         |
| 1949.....           | 386,345                 | 288,881                          | 232,329,335 <sup>2</sup>         |
| 1950.....           | 371,406                 | 4,059                            | 225,136,785 <sup>2</sup>         |
| 1951.....           | 461,664                 | 11,884                           | 240,960,846 <sup>2</sup>         |
| 1952.....           | 562,398                 | ..                               | ..                               |

<sup>1</sup> Previous year's harvested crop.

<sup>2</sup> Exports of flour for the period August 1945 to July 1951 have been revised to remove effect of time-lag in returns made by customs.

During the crop year 1950-51, Canada's reported sales under I.W.A. amounted to approximately 191,000,000 bu. out of a quota of 222,000,000. From the beginning of the crop year to Oct. 2, 1950, these sales were made at the maximum of \$1.98 per bu., basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. With the decontrol of the Canadian dollar on that date, fluctuations in value of the Canadian dollar became a factor in the pricing of wheat, the maximum price of I.W.A. wheat varying with the movement of the dollar. All Canada's sales under I.W.A. during 1950-51 were made at the maximum level. Canadian export wheat outside the Agreement was sold at the Class II price, quoted at \$2.06 per bu., basis in store Fort William-Port Arthur or Vancouver, on Aug. 1, 1950. In the last few days of



August and through early September the price dropped to the I.W.A. level of \$1.98. From Sept. 20 to early January it held at some cents above the I.W.A. price and then began to move upward. At July 31, 1951 (the end of the crop year), the Class II price stood at \$2.36½ per bu. as against \$1.90½ for I.W.A. wheat.

Sales of wheat for domestic use during 1950-51 were made at the I.W.A. price up to June 15 when a carrying charge of six cents per bushel was added on all domestic sales. At the outset of the crop year western farmers received an initial payment of \$1.40 per bu. for No. 1 Northern, basis in store Fort William-Port Arthur or Vancouver, with the final price to be received by producers for each grade of wheat depending upon the average prices at which the Canadian Wheat Board sells such grade of wheat in the 1950-51 pool. Effective Feb. 1, 1951, the initial payment was increased to \$1.60 with adjustment payments of 20 cents per bu. being paid on all wheat delivered between Aug. 1, 1950, and Jan. 31, 1951. On Nov. 19, 1951, it was announced that the net surplus in the 1950-51 wheat pool was \$104,900,000, amounting to an average final payment of 28.65 cents per bu. on the 366,200,000 bu. of wheat delivered to the Canadian Wheat Board in 1950-51. The final payment for No. 1 Northern wheat was 25.498 cents per bu. making the total return to producers for No. 1 Northern basis in store Lakehead or Vancouver \$1.85498 per bu. Sales under I.W.A. continue at the maximum level plus six cents per bushel carrying charges added to all sales registered against 1951-52 Agreement quotas. On Dec. 8 the I.W.A. price for No. 1 Northern

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*Autumn farm scene in Eastern Canada.*





stood at \$1.83 $\frac{3}{4}$  (plus six cents) and the price for Class II wheat was \$2.43 $\frac{3}{4}$ . Domestic prices remain at the I.W.A. level. The initial price to producers (effective Aug. 1, 1951) was set at \$1.40 per bu. to be followed, it is anticipated, by later returns in the form of interim and final payments.

**Other Grains.**—Marked increases in production of major feed grains in 1951, together with larger carryover stocks of oats and barley, will, if crop estimates are fully realized, result in near-record potential feed grain supplies for the 1951-52 crop year. Estimated yields of coarse grains were high in nearly all parts of the country. The oat crop was greater than in 1950 in all provinces except the Maritimes and Quebec while barley yields were higher in all provinces except Nova Scotia and Quebec. Despite the high level of total supplies and the relatively even distribution of good yields, some sections of the country were short of feed grain during the autumn months. This applied in areas in the West where crops were under snow and harvesting could not be completed till the spring of 1952. There were also local feed deficit areas in parts of British Columbia where drought conditions prevailed during the summer.

*Oats.*—In 1951 the area seeded to oats in Canada was estimated at 12,100,000 acres, the highest since 1946, but considerably below the record 16,900,000 acres seeded in 1921. The November estimate of production placed the 1951 crop at 493,000,000 bu., 73,000,000 greater than in 1950. Unfavourable harvesting conditions in Western Canada may reduce the crop from current estimates but supplies will still be at relatively high levels. Potential supplies for 1951-52, consisting of the July 31, 1951, carryover of 93,000,000 bu. and the new crop estimated at 493,000,000 bu., would be 586,000,000 bu. as against 466,000,000 bu. in 1950-51.

Commercial supplies of western oats for the 1950-51 crop year amounted to 109,700,000 bu., made up of the commercial carryover of 10,400,000 bu. and farmers' marketings of 99,300,000. Disposition of these supplies was: exports, including rolled oats and oatmeal, 34,400,000 bu.; carryover at July 31, 1951, 33,300,000 bu.; and domestic utilization, 42,000,000 bu. Of the latter quantity, 33,300,000 bu. were shipped under the freight assistance policy to Eastern Canada and British Columbia; the remainder disappeared into other domestic channels.\*

Marketing of western Canadian oats during 1950-51 was again conducted through a crop-year pool administered by the Canadian Wheat Board. Initial payments were made from the outset of the crop year on the basis of 65 cents per bu. for No. 2 C.W., in store Fort William-Port Arthur. An increase to 75 cents per bu. was made effective on Feb. 1, 1951, and was made applicable to all oats delivered or to be delivered during the crop year. On Nov. 23 it was announced that the net surplus from the 1950-51 oats pool amounted to \$9,600,000 representing an average final payment of 9.411 cents per bu. on the 102,400,000 bu. of oats delivered by western producers to the 1950-51 pool. The final payment for No. 2 C.W. oats was 9.710 cents per bu. making

\* Relatively small quantities of eastern oats may be included in the export and carryover data given here.

the total return to producers 84.710 cents per bu. The comparable total return to producers for No. 1 Feed oats was 78.599 cents per bu. Similar marketing arrangements are in effect during the 1951-52 crop year, with the basic initial payment set at 65 cents per bu. for No. 2 C.W. in store Lakehead.

Cash prices of Canadian oats, which had reached record levels in June 1950, eased somewhat during the next few months, advanced to crop-year peaks in February, and then tapered off for the remainder of the crop year. Monthly average prices of No. 1 Feed oats, as quoted by the Canadian Wheat Board, reached a crop-year high of \$1.01 $\frac{3}{8}$  per bu. in February but by July had dropped to \$0.76 $\frac{1}{8}$ , some 20 cents below the same month in 1950. Cash prices remained fairly stable during the summer months of 1951 but began an upward trend in September, reaching a high on Nov. 20 of \$1.08 $\frac{1}{4}$  per bu. for No. 1 Feed. Subsequent to that date the market eased somewhat, the price on Dec. 8 being quoted at 96 cents per bu.

*Barley.*—The area seeded to barley in 1951 was 8,000,000 acres, 1,400,000 greater than in 1950 and second only to the record 8,400,000 seeded in 1943. Production in 1951, estimated at 253,000,000 bu. on the basis of conditions

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*Father and son harvesting oats on their St. Lawrence Valley farm. Most Canadian farms are family farms, operated as individual units by their owners and limited in size to what the family unit can manage with, perhaps, a small amount of hired help.*



at Oct. 31, was also a near-record, exceeding the 1950 crop in all provinces except Quebec and Nova Scotia, with most of the increase taking place in Alberta and Saskatchewan. Potential supplies for 1951-52 amount to a record 306,000,000 bu., comprised of carryover stocks of 53,000,000 bu. and the new crop of 253,000,000 bu.

Commercial supplies of western barley for the 1950-51 crop year amounted to 90,800,000 bu., consisting of the commercial carryover of 8,900,000 bu. and farmers' marketings of 81,900,000 bu. Disposition of these supplies was as follows: exports, 23,100,000 bu.; carryover at July 31, 1951, 34,700,000; and domestic utilization, 33,000,000. Of the latter amount, 17,200,000 bu. were shipped from Western Canada to Eastern Canada and British Columbia under the freight assistance plan and the remainder disappeared into other domestic channels, principally the manufacture of malt. Total domestic disappearance of barley during 1950-51 was 116,000,000 bu. as against 112,000,000 bu. in 1949-50.

The marketing of barley was also carried on under a one-year pool arrangement administered by the Canadian Wheat Board. Initial payments, originally made on the basis of 93 cents per bu. for No. 3 C.W. 6-row barley, in store Fort William-Port Arthur, were later increased by 20 cents per bu. and were made applicable to all barley delivered to the 1950-51 pool. Distribution of final payments amounting to \$15,100,000 on the 83,500,000 bu. of barley delivered to the 1950-51 pool commenced on Oct. 15. The average payment amounted to about 18.1 cents per bu., with final payment on a grade basis varying with the difference between the initial payments and the prices realized by the Board on its sales between Oct. 1, 1950 and Sept. 22, 1951. The final payment for No. 3 C.W. 6-row barley was 20.882 cents per bu. making the total return to producers \$1.33882 per bu. The comparable total return to producers for No. 1 Feed barley was \$1.23164 per bu. During 1951-52 another one-year pool is operating with initial payments based on 96 cents per bu. for No. 3 C.W. 6-row barley, in store Fort William-Port Arthur.

Cash barley prices followed much the same pattern as oats prices during 1950-51, the monthly average price for No. 1 Feed barley reaching a peak of \$1.53½ per bu. in February. By July, however, the monthly average had dropped to \$1.15¾, about 23 p.c. below the July 1950 prices. Barley prices moved upward during the first months of the 1951-52 crop year, reaching a peak of \$1.49 on Nov. 8. Some easing occurred after that, the price on Dec. 8, 1951, being quoted at \$1.38½ per bu.

*Rye.*—Although Canada's 1951 rye crop of 18,000,000 bu. was 4,700,000 bu. above the previous year, carryover stocks were lower and total supplies at 21,400,000 bu. were only a little above the 1950 level. Exports for the past few years have ranged near the 10,000,000 bu. level and, providing stocks can be moved into forward positions, there should be little difficulty in disposing of the commercial surplus during the 1951-52 crop year.

Fall rye sowings in 1951 are estimated at 684,000 acres, a decline of 16 p.c. from the acreage planted in 1950. The decrease is apparently a reflection of adverse seeding conditions in the Prairie Provinces since prices at seeding time in 1951 were somewhat higher than at the same time in 1950. Prices for rye, which is traded on the open market, moved upward after mid-August.



**Flaxseed.**—In response to anticipated favourable returns for flaxseed compared with alternate crops, the seeded acreage in Canada was nearly doubled in 1951 compared with the previous year. The crop is estimated at 9,200,000 bu. which, with a carryover of 1,200,000 bu., would make total supplies of 10,400,000 bu. However, due to poor harvest weather, production may not reach the current estimate. The outlook for disposing of current flaxseed supplies is relatively good.

Prices for flaxseed, which is traded on the open market, increased rapidly in early 1951, reaching a peak in February when the monthly average price for No. 1 C.W. flaxseed, basis in store Lakehead, was \$5.43½ per bu. The market eased later, the monthly average for August 1951 standing at \$4.07½. Since that time the market has moved upward again, the November average reaching \$4.84½ per bu.

### Acreages, Production and Values of Field Crops, 1950 and 1951

| Crop                | Revised Estimate 1950 Crops |            |                               | Third Estimate 1951 Crops |            |                               |
|---------------------|-----------------------------|------------|-------------------------------|---------------------------|------------|-------------------------------|
|                     | Area                        | Production | Gross Farm Value <sup>1</sup> | Area                      | Production | Gross Farm Value <sup>2</sup> |
|                     | '000 acres                  | '000 bu.   | \$'000                        | '000 acres                | '000 bu.   | \$'000                        |
| Wheat.....          | 27,021                      | 461,664    | 712,210                       | 25,731                    | 562,398    | 651,965 <sup>2</sup>          |
| Oats.....           | 11,575                      | 419,930    | 331,015                       | 12,065                    | 493,292    | 311,604 <sup>2</sup>          |
| Barley.....         | 6,625                       | 171,393    | 193,658                       | 8,036                     | 252,930    | 200,436 <sup>2</sup>          |
| Rye.....            | 1,168                       | 13,333     | 17,697                        | 1,127                     | 18,014     | 27,084                        |
| Mixed grains.....   | 1,679                       | 74,190     | 75,975                        | 1,807                     | 79,995     | 79,870                        |
| Corn, shelled.....  | 306                         | 13,839     | 22,157                        | 300                       | 15,662     | 28,084                        |
| Buckwheat.....      | 155                         | 3,977      | 5,296                         | 169                       | 3,986      | 5,101                         |
| Peas, dry.....      | 49                          | 812        | 2,644                         | 44                        | 842        | 2,713                         |
| Beans, dry.....     | 76                          | 1,350      | 6,453                         | 67                        | 1,389      | 5,910                         |
| Potatoes.....       | 505                         | 97,045     | 74,970                        | 401                       | 67,195     | 93,474                        |
| Flaxseed.....       | 560                         | 4,686      | 16,260                        | 1,112                     | 9,212      | 36,204                        |
| Soybeans.....       | 142                         | 3,323      | 8,474                         | 176                       | 4,367      | 12,009                        |
|                     |                             | '000 lb.   |                               |                           | '000 lb.   |                               |
| Sunflower seed..... | 26                          | 9,880      | 477                           | 22                        | 6,450      | 322                           |
| Rapeseed.....       | 1                           | 420        | 16                            | 8                         | 7,125      | 249                           |
|                     |                             | '000 cwt.  |                               |                           | '000 cwt.  |                               |
| Field roots.....    | 103                         | 23,093     | 21,881                        | 92                        | 21,261     | 20,107                        |
|                     |                             | '000 tons  |                               |                           | '000 tons  |                               |
| Hay and clover..... | 9,254                       | 12,913     | 233,900                       | 9,667                     | 17,240     | 252,642                       |
| Alfalfa.....        | 1,547                       | 3,233      | 63,675                        | 1,581                     | 3,829      | 67,400                        |
| Fodder corn.....    | 628                         | 6,421      | 34,746                        | 549                       | 5,122      | 25,222                        |
| Grain hay.....      | 814                         | 1,109      | 14,500                        | 1,003                     | 1,993      | 25,157                        |
| Sugar beets.....    | 102                         | 1,128      | 18,367                        | 97                        | 1,027      | 10,491 <sup>2</sup>           |

<sup>1</sup> Includes final payments on western Canadian wheat, oats and barley. <sup>2</sup> Based on initial payments only for western Canadian wheat, oats and barley, and for sugar beets in all provinces; subject to upward revision when interim and final payments become known.

**Live Stock.**—There were more cattle and hogs on farms in Canada on June 1, 1951, than on the same date of 1950, but the numbers were still considerably below the peak levels reached during the 1943-45 period. The number of sheep on farms continued to decrease, although at a lower rate during the latest year, and a record low was established on June 1, 1951. On that date, the number of horses was just a little over half the number on the same date of 1942.

## Numbers of Principal Species of Live Stock on Farms, June 1, 1942-51

| Year      | Cattle | Hogs  | Sheep and Lambs | Horses |
|-----------|--------|-------|-----------------|--------|
|           | '000   | '000  | '000            | '000   |
| 1942..... | 8,945  | 7,125 | 3,197           | 2,816  |
| 1943..... | 9,665  | 8,148 | 3,459           | 2,775  |
| 1944..... | 10,346 | 7,741 | 3,726           | 2,735  |
| 1945..... | 10,759 | 6,026 | 3,622           | 2,585  |
| 1946..... | 9,665  | 4,910 | 2,942           | 2,200  |
| 1947..... | 9,718  | 5,473 | 2,707           | 2,032  |
| 1948..... | 9,476  | 4,463 | 2,247           | 1,904  |
| 1949..... | 9,081  | 5,163 | 2,075           | 1,796  |
| 1950..... | 9,045  | 5,247 | 2,015           | 1,683  |
| 1951..... | 9,333  | 5,875 | 1,968           | 1,505  |

**Poultry and Eggs.**—The estimated number of hens, cocks and chickens on farms at June 1, 1950, continued the downward trend in evidence the previous two years. In fact the 1950 total of 61,469,000, which was down from 69,031,000 in 1949, was the lowest since 1941. The high cost of feed, without a commensurate increase in egg prices, was the reason given by many producers for reducing their flocks. However, during the 1951 hatching season an upward swing in poultry numbers resulted in an estimate of 71,116,000 hens, cocks and chickens on farms at June 1, 1951.

Other poultry on farms at June 1, 1950, were estimated at 2,559,000 turkeys, 368,900 geese and 488,900 ducks; the June 1, 1951, estimates were 2,698,000 turkeys, 384,000 geese and 467,000 ducks.

*Feeding broilers in a battery brooder. These chicks are fed low-fibre high-protein ration and marketed when they reach a weight of two to three pounds.*



Fewer birds on poultry farms affected the amount of poultry meat placed on the market in 1950 which decreased to 270,607,000 lb. from 284,231,000 lb. in 1949. Egg production declined to 305,173,000 doz. from 314,488,000 doz. in 1949.

### *Farm Poultry-Meat and Farm-Egg Production, by Economic Areas, 1948-50*

| Economic Area<br>and Year | Poultry-Meat Production |                           |                | Egg Production |                           |                    |
|---------------------------|-------------------------|---------------------------|----------------|----------------|---------------------------|--------------------|
|                           | Marketed                | Farm-<br>Home<br>Consumed | Total          | Marketed       | Farm-<br>Home<br>Consumed | Total <sup>1</sup> |
|                           | '000 lb.                | '000 lb.                  | '000 lb.       | '000 doz.      | '000 doz.                 | '000 doz.          |
| Maritimes....1948         | 9,910                   | 4,289                     | 14,199         | 19,902         | 5,710                     | 25,959             |
| 1949                      | 11,483                  | 4,618                     | 16,101         | 18,461         | 5,804                     | 24,539             |
| 1950                      | 8,742                   | 4,092                     | 12,834         | 19,188         | 5,932                     | 25,512             |
| Que. and Ont...1948       | 112,967                 | 21,336                    | 134,303        | 167,367        | 29,130                    | 201,462            |
| 1949                      | 144,341                 | 24,594                    | 168,935        | 142,263        | 26,600                    | 173,901            |
| 1950                      | 144,637                 | 22,741                    | 167,378        | 142,645        | 27,541                    | 174,326            |
| Prairies.....1948         | 52,341                  | 33,129                    | 85,470         | 75,698         | 21,670                    | 100,554            |
| 1949                      | 53,819                  | 32,931                    | 86,750         | 67,970         | 19,690                    | 91,195             |
| 1950                      | 48,733                  | 30,011                    | 78,744         | 61,892         | 19,485                    | 83,415             |
| B.C.....1948              | 12,515                  | 2,839                     | 15,354         | 24,327         | 2,655                     | 28,191             |
| 1949                      | 10,165                  | 2,280                     | 12,445         | 21,471         | 2,289                     | 24,853             |
| 1950                      | 9,452                   | 2,199                     | 11,651         | 19,410         | 1,732                     | 21,920             |
| <b>Totals....1948</b>     | <b>187,733</b>          | <b>61,593</b>             | <b>249,326</b> | <b>287,294</b> | <b>59,165</b>             | <b>356,166</b>     |
| <b>1949</b>               | <b>219,808</b>          | <b>64,423</b>             | <b>284,231</b> | <b>250,165</b> | <b>54,383</b>             | <b>314,488</b>     |
| <b>1950</b>               | <b>211,564</b>          | <b>59,043</b>             | <b>270,607</b> | <b>243,135</b> | <b>54,690</b>             | <b>305,173</b>     |

<sup>1</sup> Includes eggs sold for hatching and used for hatching on farms.

**Dairying.**—Milk production in 1951 was approximately the same as in 1950 despite a continuation in the downward movement of dairy cow numbers which had been taking place since 1948. The maintenance of production was due, in part, to excellent pasture conditions during 1951 and perhaps also to the retention of better producers in the herds in the culling process that had been taking place. Although the number of cows kept for dairy purposes declined by 2 p.c. between June 1, 1950, and the same date of 1951, numbers of dairy heifers increased by 2 p.c., indicating a disposition on the part of farmers to build up herds again. The utilization of milk produced in 1951 followed the previous post-war trend. Sales of fluid milk and cream were up slightly over 1950 and a sharp increase took place in quantities utilized in the manufacture of concentrated whole-milk products. The extra milk needed to produce these increases was drawn away from butter and cheese production.

**Butter and Cheese.**—Creamery butter production declined about 33,000,000 lb. since 1947, and the 1951 production of approximately 258,000,000 lb. was about 54,000,000 lb. below the peak production in 1943. Total butter production, including creamery, dairy and whey butter, fell 24,000,000 lb. between 1949 and 1950, and a further decline of 3,000,000 lb. during 1951 placed the estimated total for that year at approximately 308,000,000 lb. This was a reduction of 61,000,000 lb. from 1943. To meet domestic market requirements approximately 5,000,000 lb. of butter were imported into Canada in 1947, 14,500,000 lb. in 1948 and 1,000,000 lb. in



1949. The 1950 imports were small in amount but in 1951 a total of 17,500,000 lb. were shipped into Canada. When it became evident that butter supplies would be insufficient for domestic needs in 1951-52, arrangements were made by the trade to import 4,500,000 lb. and it was announced that the Federal Government would import 10,000,000 lb.; 12,387,000 lb. were imported between August and November under these special arrangements, the remainder to be delivered early in 1952.

Domestic disappearance of butter in 1950 averaged 23.5 lb. per capita compared with 28.7 in 1948. It was in December 1948 that the manufacture of margarine in Canada was declared legal. Per capita consumption of margarine in 1950 was 6.7 lb.

Cheese production suffered a greater decline during the past few years than that of butter. The output of cheddar cheese in 1950 fell to almost 96,000,000 lb. from 117,000,000 lb. in 1949, and the 1951 output is estimated at 85,000,000 lb. This production may be compared with the peak output of 206,000,000 lb. in 1942. No contract was made between the Governments of Canada and the United Kingdom for the shipment of cheese in 1951. However, a contract was made by the Ontario Cheese Producers Association which guaranteed the shipment of 20,000,000 lb. to the United Kingdom during the period May to October 1951, provided the amount produced in the Province reached 60,000,000 lb. If less than this amount was produced, 18,000,000 lb. would complete the contract, and if more was produced the United Kingdom would accept up to 90 p.c. of the excess production. Although Ontario production was slightly below 60,000,000 lb., total shipments under the Ontario contract amounted to 25,633,000 lb.; the amount delivered to the United Kingdom from Ontario and Quebec combined was 27,805,900 lb. Under the Ontario contract this cheese was sold at 32 cents per lb. f.a.s., while the price of domestic cheese was set by the Association at 36 cents per lb. Ontario white cheese at Montreal averaged slightly higher, being 37 cents as compared with 29½ cents in 1950.

*Concentrated Milk and Ice Cream.*—The production of concentrated milk products—which include evaporated and condensed milk, whole milk powder, condensed and evaporated skim milk, skim milk powder, condensed butter-milk and buttermilk powder and casein—showed a gain of 13 p.c. in the January-November period of 1951 as compared with the same months of 1950. Evaporated milk, which makes up about 70 p.c. of the total in terms of milk, showed the most significant gain, advancing 14 p.c. On the other hand, skim milk powder, the second most important item, decreased by approximately 1 p.c. In 1950 (the latest year for which complete figures are available) evaporated milk production amounted to 257,000,000 lb. and skim milk to 53,000,000 lb. The total production of all concentrated whole-milk products and concentrated milk by-products was 382,000,000 lb.

Ice cream manufactured during the January-November period of 1951 reached a total of approximately 24,000,000 gal., an increase of 6 p.c. compared with the same period of 1950. Production for the entire year 1950 was approximately the same as that for the eleven-month period of 1951.

*Income and Values.*—Farm income from dairying in 1950 amounted to \$328,000,000, compared with \$332,000,000 in 1949 and nearly \$387,000,000 in 1948. However, in the January-September period of 1951, the income from



A great deal of money is invested in the dairy industry of Canada—in herds, machines, farms and factories—Canada's milch cows alone representing an investment of \$600,000,000.



dairying was 12.6 p.c. above that for the same months of 1950. Since there was a reduction in the milk output, it is obvious that the gain indicated was due entirely to higher prices. Fluid milk averaged \$3.99 per hundred lb. in comparison with \$3.84 in 1950, and all products combined on a milk basis averaged \$2.85 per hundred lb. in place of \$2.52. The total value of milk production in 1950 (f.o.b. farm) was \$431,000,000 compared with \$457,000,000 in 1949 and \$506,000,000 in 1948. Dairy products valued at the factory amounted to \$454,000,000 in 1950 compared with \$480,000,000 in the previous year.

### *Dairy Production, by Economic Areas, 1947-50*

| Economic Area<br>and Year | Milk             |                               | Manufactured Milk Products <sup>1</sup> |               |                            |               |
|---------------------------|------------------|-------------------------------|-----------------------------------------|---------------|----------------------------|---------------|
|                           | Fluid<br>Sales   | Total<br>Milk Pro-<br>duction | Butter                                  |               | Cheddar<br>Cheese          | Ice<br>Cream  |
|                           |                  |                               | Creamery                                | Dairy         |                            |               |
|                           | '000 lb.         | '000 lb.                      | '000 lb.                                | '000 lb.      | '000 lb.                   | '000 gal.     |
| Maritimes.....1947        | 234,513          | 1,059,276                     | 17,260                                  | 8,014         | 1,407                      | 2,177         |
| 1948                      | 226,316          | 1,079,889                     | 17,854                                  | 8,881         | 1,466                      | 2,557         |
| 1949 <sup>2</sup>         | 229,553          | 1,095,337                     | 18,809                                  | 7,582         | 1,619                      | 2,573         |
| 1950 <sup>2</sup>         | 234,981          | 1,060,935                     | 17,702                                  | 6,882         | 1,514                      | 2,307         |
| Que. and Ont...1947       | 2,943,767        | 10,733,941                    | 174,531                                 | 16,303        | 113,148                    | 14,339        |
| 1948                      | 2,838,889        | 10,348,460                    | 171,510                                 | 19,854        | 81,756                     | 15,151        |
| 1949                      | 2,873,262        | 10,570,555                    | 168,220                                 | 15,557        | 109,806                    | 14,617        |
| 1950                      | 2,921,474        | 10,298,685                    | 156,504                                 | 14,418        | 89,482                     | 14,201        |
| Prairies,.....1947        | 659,817          | 4,819,484                     | 94,722                                  | 30,281        | 6,864                      | 4,438         |
| 1948                      | 639,331          | 4,668,437                     | 91,939                                  | 32,511        | 5,372                      | 5,006         |
| 1949                      | 653,436          | 4,526,519                     | 88,165                                  | 28,455        | 4,992                      | 5,184         |
| 1950                      | 665,995          | 4,409,266                     | 82,734                                  | 24,561        | 4,746                      | 4,802         |
| B.C.....1947              | 324,442          | 628,087                       | 4,439                                   | 1,697         | 533                        | 2,487         |
| 1948                      | 320,381          | 633,576                       | 4,326                                   | 1,599         | 431                        | 2,492         |
| 1949                      | 327,502          | 650,934                       | 4,611                                   | 1,258         | 498                        | 2,416         |
| 1950                      | 334,577          | 668,102                       | 4,666                                   | 1,036         | 564                        | 2,451         |
| <b>Totals....1947</b>     | <b>4,162,539</b> | <b>17,240,788</b>             | <b>290,952</b>                          | <b>56,295</b> | <b>121,952<sup>3</sup></b> | <b>23,441</b> |
| <b>1948</b>               | <b>4,024,917</b> | <b>16,730,362</b>             | <b>285,629</b>                          | <b>62,845</b> | <b>89,025<sup>3</sup></b>  | <b>25,206</b> |
| <b>1949<sup>2</sup></b>   | <b>4,083,753</b> | <b>16,843,345</b>             | <b>279,805</b>                          | <b>52,852</b> | <b>116,915<sup>3</sup></b> | <b>24,790</b> |
| <b>1950<sup>2</sup></b>   | <b>4,157,027</b> | <b>16,436,988</b>             | <b>261,606</b>                          | <b>46,897</b> | <b>96,306<sup>3</sup></b>  | <b>23,761</b> |

<sup>1</sup> Concentrated milk products are not shown; total production was 338,356,000 lb. in 1947, 399,187,000 lb. in 1948, 371,342,000 lb. in 1949 and 382,151,000 lb. in 1950. <sup>2</sup> Exclusive of Newfoundland. <sup>3</sup> Total cheese production amounted to 125,571,000 lb. in 1947, 94,678,000 lb. in 1948, 121,030,000 lb. in 1949 and 101,140,000 lb. in 1950.

### *Special Crops*

**Fruit.**—Fruit is produced on a commercial scale in Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia. In addition to the cultivated fruits large quantities of native berries are harvested, particularly in Eastern Canada, but no complete data on production are available.

Poor sizing and heavy dropping of apples caused by strong winds in late September contributed to a lower apple crop in British Columbia in 1951 compared with the previous year. The Nova Scotia crop was also reduced by considerable spot and rust damage, chiefly in early varieties. In Ontario and Quebec, however, the 1951 apple crop exceeded the 1950 production. The yield of all tender tree fruits in British Columbia was below average in 1951, still reflecting the heavy frost damage to trees during the winter of 1949-50. The 1951 grape crop in Ontario was 10,600,000 lb. below the record 1950 level though the quality was exceptionally good.





Apple orchard  
on an Ottawa  
Valley farm.



Apples being  
wrapped indi-  
vidually at a  
co-operative  
fruit-packing  
Plant in British  
Columbia.

The November 1951 estimates of production with final estimates for 1950 in parentheses were: apples, 13,804,000 bu. (16,166,000 bu.); pears, 1,185,000 bu. (864,000 bu.); plums and prunes, 675,000 bu. (600,000 bu.); peaches, 1,682,000 bu. (1,222,000 bu.); apricots, 49,000 bu. (18,000 bu.); cherries, 423,000 bu. (359,000 bu.); strawberries, 24,612,000 qt. (27,121,000 qt.); raspberries, 12,647,000 qt. (11,964,000 qt.); loganberries, 887,000 lb. (1,197,000 lb.); and grapes, 98,595,000 lb. (109,189,000 lb.).

Exports of fresh apples from the 1950 crop amounted to approximately 3,900,000 bu. of which 2,300,000 bu. were shipped to the United States and 1,500,000 bu. to the United Kingdom. The United Kingdom produced a heavy apple crop in 1951 and there has been increased production in recent years in several continental European countries.

Under the terms of the trade agreement entered into by Canada at the Torquay Conference of 1950-51, the duty on apples was reduced from  $\frac{3}{4}$  to  $\frac{3}{8}$  cents per lb. and the period during which no duty is applicable was prolonged by 19 days. Apples may now be imported duty free from May 20 to July 31.

### *Values of Fruits Produced, 1947-50, with Averages, 1942-46*

| Fruit                | Average<br>1942-46 | 1947       | 1948       | 1949       | 1950       |
|----------------------|--------------------|------------|------------|------------|------------|
|                      | \$                 | \$         | \$         | \$         | \$         |
| Apples.....          | 18,759,000         | 22,840,000 | 22,631,000 | 19,684,000 | 19,493,000 |
| Pears.....           | 1,752,000          | 2,178,000  | 2,185,000  | 2,436,000  | 2,136,000  |
| Plums and prunes.... | 1,254,000          | 1,471,000  | 1,889,000  | 1,387,000  | 1,278,000  |
| Peaches.....         | 4,004,000          | 4,128,000  | 4,953,000  | 4,987,000  | 2,814,000  |
| Apricots.....        | 317,000            | 327,000    | 629,000    | 810,000    | 93,000     |
| Cherries.....        | 1,776,000          | 2,128,000  | 2,863,000  | 3,436,000  | 2,168,000  |
| Totals, Tree Fruits. | 27,862,000         | 33,072,000 | 35,150,000 | 32,740,000 | 27,982,000 |
| Strawberries.....    | 3,276,000          | 5,404,000  | 6,821,000  | 5,662,000  | 6,885,000  |
| Raspberries.....     | 2,713,000          | 4,354,000  | 3,279,000  | 2,614,000  | 2,968,000  |
| Grapes.....          | 2,336,000          | 3,568,000  | 2,559,000  | 2,012,000  | 3,543,000  |
| Loganberries.....    | 181,000            | 213,000    | 340,000    | 124,000    | 177,000    |
| Totals, Small Fruits | 8,506,000          | 13,539,000 | 12,999,000 | 10,412,000 | 13,573,000 |
| Totals, All Fruits   | 36,368,000         | 46,611,000 | 48,149,000 | 43,152,000 | 41,555,000 |

**Tobacco.**—Production of tobacco in 1951 is estimated at 151,200,000 lb., a crop about 25 p.c. larger than that in 1950. The increase was due to relatively favourable weather conditions and heavier plantings, the acreage being 119,470 compared with 101,839 in 1950. Flue-cured tobacco made up 93 p.c. of the total area planted in 1951. In Ontario, where the largest producing areas of this type are located, the acreage increase was 18,930 and the total area of flue-cured was 106,260 acres. This substantial rise was the result of the decision of the Flue-cured Tobacco Marketing Association, made early in 1951, to remove acreage controls and allow grower members of the Association to plant their full base acreage. Total tobacco acreages, by provinces, for 1951 with 1950 data in parentheses were: Quebec, 9,620 acres (9,163); Ontario, 109,710 acres (92,556); British Columbia, 140 acres (120).

**Honey.**—The estimated number of beekeepers decreased from 22,180 in 1950 to 18,760 in 1951, continuing the downward trend in evidence since 1945.

As a consequence, colony numbers also showed a reduction of 9,200 from 1950, the 1951 estimate being placed at 420,840 colonies. Stocks of honey on July 1, 1951, were about 4,500,000 lb. less than on the same date a year earlier. Despite the fewer colonies, honey production in 1951 was estimated at 38,800,000 lb., a figure about 37 p.c. above the estimate for 1950. This increase was due largely to the favourable weather that prevailed in Ontario and Quebec during the honey-gathering season. Prospects of overseas shipments of Canadian honey are not encouraging due, in part, to the dollar shortage and also to the fact that United States exports of honey are subsidized.

**Maple Products.**—Cool, rainy weather during the spring of 1951 resulted in a relatively small crop of maple syrup and sugar (expressed in terms of syrup) of 2,309,000 gal. as compared with 2,983,000 gal. in 1950, output being down in all producing areas. For the same reason, some of the syrup was not of the highest quality.

**Sugar Beets.**—Production of sugar beets in 1951 was estimated on Nov. 15 at just over 1,000,000 tons, compared with the 1950 record of 1,100,000 tons. In Alberta, extremely unfavourable weather interfered with lifting the sugar-beet crop and full realization of the Alberta estimate depended on weather conditions permitting growers to lift and market the remaining beets before final freeze-up. The acreages, by provinces, in 1951 with data for 1950 in parentheses were: Quebec, 10,000 acres (11,750); Ontario, 31,525 acres (33,550); Manitoba, 19,100 acres (20,198); Alberta, 36,600 acres (36,152). Estimates of production, by provinces, with comparable figures for 1950 in parentheses were: Quebec, 94,800 tons (147,000); Ontario, 334,300 tons (386,000); Manitoba, 178,000 tons (150,000); Alberta, 420,000 tons (445,000). Processing plants are located at St. Hilaire, Que., Wallaceburg and Chatham, Ont., Fort Garry, Man., and Taber, Picture Butte and Raymond, Alta.

**Seeds.**—The latest information available on the production of seeds is for the year 1950.

### *Seed Production, by Kinds, 1949 and 1950*

| Kind                | 1949      | 1950      | Kind               | 1949      | 1950      |
|---------------------|-----------|-----------|--------------------|-----------|-----------|
|                     | '000 lb.  | '000 lb.  |                    | lb.       | lb.       |
| Hay and Pasture—    |           |           | Carrot.....        | 49,163    | 41,200    |
| Alfalfa.....        | 8,845     | 12,535    | Cauliflower.....   | 666       | 380       |
| Red clover.....     | 4,542     | 3,625     | Corn.....          | 275,234   | 353,200   |
| Alsike.....         | 3,183     | 2,320     | Cucumber.....      | 16,605    | 2,200     |
| Sweet clover.....   | 22,297    | 22,429    | Leek.....          | 660       | 500       |
| Timothy.....        | 7,406     | 15,928    | Lettuce.....       | 22,850    | 23,400    |
| Brome grass.....    | 6,350     | 13,930    | Mangel.....        | 72,200    | 31,500    |
| Crested wheat grass | 394       | 1,229     | Muskmelon.....     | 875       | 2,400     |
| Creeping red fescue | 1,046     | 559       | Onion.....         | 66,424    | 104,400   |
| Canadian blue grass | 253       | 102       | Parsnip.....       | 3,400     | 9,100     |
| Kentucky blue grass | 110       | 1,600     | Pea.....           | 4,876,535 | 7,401,500 |
| Western rye grass.. | 33        | 45        | Pepper.....        | 186       | 330       |
| Bent grass.....     | 1         | —         | Pumpkin.....       | 2,175     | 1,000     |
| Vegetable and Field |           |           | Radish.....        | 19,550    | 9,400     |
| Root—               | lb.       | lb.       | Spinach.....       | 8,288     | 8,500     |
| Asparagus.....      | 20,060    | 20,100    | Squash and marrow. | 4,198     | 2,100     |
| Bean.....           | 1,646,150 | 1,212,800 | Sugar beet.....    | 402,759   | 650,000   |
| Beet.....           | 17,205    | 25,400    | Swede.....         | 55,047    | 46,700    |
| Cabbage.....        | 2,099     | 1,200     | Swiss chard.....   | —         | 220       |
|                     |           |           | Tomato.....        | 3,554     | 2,200     |





## Forestry

THE forests of Canada stretch in a belt generally from 600 to 1,000 miles wide across the eastern provinces, curving northward on the prairies and dipping southward again to cover much of the Province of British Columbia. These woodlands extend over an area of 1,299,759 sq. miles, more than one-third of the land surface of Canada. About 712,000 sq. miles of this vast forested region are considered to be productive in the sense that they are capable of producing crops of merchantable wood. The natural tendency is to evaluate the forests in terms of timber because it is the chief marketable commodity, but at the same time it must not be forgotten that the forests perform other very valuable functions. They aid in safeguarding agricultural lands against drought and erosion, protect watersheds, conserve water supplies and provide cover for game and fur-bearing animals.

Of the productive forests, 483,809 sq. miles are at present accessible for commercial operations. They include large supplies of softwoods—spruce and balsam, pine, Douglas fir, hemlock, cedar and poplar—which are in greatest demand to-day, and in addition many varieties of hardwoods, such as birch, maple, elm and basswood, which are of importance for specialized purposes. It is this accessible productive area that provides the raw materials for Canada's invaluable forest industries—industries that convert the resources of the forests into pulp, paper, building materials, textile yarns, plastics, furniture and hundreds of commodities that have become essential and commonplace—industries that have been a fundamental force in the social and economic development of Canada and whose activities affect, directly or indirectly, every Canadian as an income-earner and a consumer.

The forest resources of Canada are almost wholly owned by the Crown, that is by the people of Canada, and are administered by either the Federal Government or the Provincial Governments. Only about 97,000 sq. miles are owned by individuals or corporations and one-third of that area is in farm woodlots. The Federal Government administers the forests of Yukon and the Northwest Territories as well as those in the National Parks and Forest Experiment Stations, and each province administers the other forested land within its boundaries. Such land is leased, for cutting purposes, to lumber or pulp and paper companies and revenue is received in the form of Crown dues or stumpage; ground-rents and fire-protection taxes are collected annually. As new regions are explored, their lands are examined and the agricultural land disposed of. Land suitable only for forest growth is set aside; the policy of disposing of the title to such lands has been virtually abandoned.

The life blood of any industry is its raw material and the future of the forest industries depends on the maintenance of the woodlands. In 1949 the Federal Government passed the Canada Forestry Act which authorizes the Federal authorities to participate in measures for the protection and conservation of the forest heritage and to collaborate with the provinces in fire, insect and disease protection, and such activities as forest inventories, forest research, forestry publicity and education, and improvement of growing

conditions and management. The cost of these undertakings will be shared by the Federal Government and the province concerned. Much has been done in the line of forest conservation and in research by the pulp and paper companies, which are the largest leaseholders of Crown timber. They have tremendous investments in their mills which cannot be moved to new sources of supply and are therefore vitally interested in the maintenance of the woodlands and in their conservation and replenishment for future use.

## Forest Utilization

**Operations in the Woods.**—The most important of the primary products of the forest is pulpwood. About 60 p.c. of the twelve or thirteen million cords of pulpwood harvested annually is cut from the 158,000 sq. miles of forest leased by pulp and paper companies from the provincial governments. The remainder is purchased from farmers, settlers and other owners or operators of woodlands. In British Columbia cutting work goes on during most of the year. East of the Rockies, woods operations are largely seasonal, beginning in August and ending when the snow gets too deep for cutting. Thousands of men are required to fell, saw, stack, skid and move the pulpwood harvest. Hundreds are needed to feed and house them and to equip and supervise them. In the spring, thousands more are called upon to carry out the river drive and send the logs on their way to the mills, one of the most spectacular of all industrial operations.

Second to pulpwood ranks the cutting of logs and bolts for transfer to sawmills, veneer mills and other plants. Logging generally has become a highly organized and mechanized operation and it is estimated that all operations in the woods in 1949 gave employment amounting to 37,836,000 man-days and distributed \$321,000,000 in wages and salaries.

### *Value of Woods Operations, by Products, 1945-49*

| Products                    | 1945               | 1946               | 1947               | 1948               | 1949               |
|-----------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                             | \$                 | \$                 | \$                 | \$                 | \$                 |
| Logs and bolts.....         | 120,682,306        | 150,933,681        | 205,259,855        | 215,108,932        | 207,789,335        |
| Pulpwood.....               | 146,172,701        | 183,085,359        | 237,488,741        | 284,656,819        | 270,697,980        |
| Firewood.....               | 45,193,219         | 49,544,756         | 46,206,336         | 49,535,855         | 48,816,965         |
| Hewn railway ties....       | 1,339,920          | 1,131,951          | 1,177,806          | 1,303,596          | 917,033            |
| Poles.....                  | 5,663,793          | 5,302,324          | 8,404,809          | 13,116,480         | 11,485,488         |
| Round mining timber         | 6,437,074          | 12,149,767         | 10,082,458         | 10,268,435         | 10,376,305         |
| Fence posts.....            | 2,690,569          | 3,091,268          | 2,832,783          | 2,489,286          | 2,640,576          |
| Wood for distillation.      | 687,102            | 452,196            | 544,746            | 497,286            | 467,997            |
| Fence rails.....            | 367,741            | 605,503            | 628,804            | 591,484            | 644,844            |
| Miscellaneous products..... | 5,090,476          | 6,972,509          | 7,177,790          | 8,726,895          | 7,575,539          |
| <b>Totals.....</b>          | <b>334,324,901</b> | <b>413,269,314</b> | <b>519,804,128</b> | <b>586,295,068</b> | <b>561,412,062</b> |

On the average, about 90 p.c. of all the primary forest products are used in Canada. Sawlogs, pulpwood and fuel account for over 95 p.c. of the production and exports of sawlogs and fuelwood amount to about 1 p.c. of the output while exports of pulpwood are less than 20 p.c.

**Lumber.**—The lumber industry includes not only the production of sawn lumber of all dimensions, but also that of shingles, laths, sawn ties, hardwood squares, box shooks, staves and heading, and the barking of pulpwood in plants other than pulpmills.



Sawmills are operated in every province of Canada as well as in Yukon and the Northwest Territories, but British Columbia leads by a wide margin in production of all sawmill products, particularly sawn lumber, shingles and ties. Altogether 7,460 sawmills operated during 1949, with 55,032 employees and a total payroll of \$97,449,091. Wood sawn into lumber consists chiefly of conifers; spruce, Douglas fir, hemlock, white pine, cedar and other softwoods account for about 95 p.c. and hardwoods for 5 p.c.

*Production of Sawn Lumber and All Sawmill Products, 1949*

| Province or Territory                | Sawn Lumber Production |                    | Total Sawmill Products |
|--------------------------------------|------------------------|--------------------|------------------------|
|                                      | '000 ft. b.m.          | \$                 | \$                     |
| Newfoundland.....                    | 34,060                 | 1,586,747          | 2,080,842              |
| Prince Edward Island.....            | 9,872                  | 446,341            | 506,591                |
| Nova Scotia.....                     | 262,963                | 12,345,754         | 13,562,282             |
| New Brunswick.....                   | 294,225                | 15,130,833         | 17,858,803             |
| Quebec.....                          | 1,128,076              | 59,100,719         | 69,624,009             |
| Ontario.....                         | 793,039                | 49,806,861         | 62,739,000             |
| Manitoba.....                        | 56,689                 | 2,821,479          | 3,064,696              |
| Saskatchewan.....                    | 74,760                 | 3,253,700          | 3,562,128              |
| Alberta.....                         | 306,353                | 12,281,439         | 13,500,571             |
| British Columbia.....                | 2,951,183              | 177,708,047        | 209,607,511            |
| Yukon and Northwest Territories..... | 4,223                  | 307,953            | 308,768                |
| <b>Canada.....</b>                   | <b>5,915,443</b>       | <b>334,789,873</b> | <b>396,415,201</b>     |

The 1949 gross value of \$396,415,201 includes the following commodities: sawn lumber (\$334,789,873); shingles (\$19,568,633); sawn ties (\$8,197,467); processed pulpwood (\$8,028,725); box shooks (\$4,855,297); spoolwood

*A sawmill in northern Ontario.*



(\$1,791,766); flatted mine timbers (\$1,659,494); staves (\$1,194,815); lath (\$1,136,208); pickets (\$536,227); heading (\$484,796); and other wood products and by-products (\$14,171,900).

Over 37 p.c. of the sawn lumber produced in 1949 was exported and the remainder was used for structural work in Canada or went into Canadian wood-using industries as the raw material in the manufacture of sash, doors and planing-mill products, furniture, boxes, cooperage, etc.

**Pulp and Paper.**—The production of pulp and paper is Canada's largest single industry. It ranks first in capital invested, first in value of production and first in value of exports, second in employment but first in salaries and wages paid. Its field of operation extends from coast to coast—in the great forests and the farm woodlots, in the big mills and the little mills, in villages and in cities. Altogether at the end of 1951 there were 130 plants across the country whose location was determined largely by proximity to sources of raw material, means of low-cost transportation, and hydro-electric power sites. In Ontario there were 45 mills and in Quebec 57. The great evergreen forests of the Pacific seaboard supplied 12 mills in British Columbia. There were 11 mills in the Maritime Provinces and the entry of Newfoundland into Canadian Confederation in 1949 added three large units to the industry. There were only two mills on the prairies, both in Manitoba. In 1950, the 123 mills then in operation employed 52,343 workers, paid out \$169,246,531 in wages and salaries and had a total production valued at \$954,137,651.

### *Principal Statistics of the Pulp and Paper Industry, 1930, 1940, 1948-50*

| Item                            | 1930        | 1940        | 1948        | 1949        | 1950        |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|
| Establishments.. No.            | 109         | 103         | 117         | 123         | 123         |
| Employees..... "                | 33,207      | 34,719      | 51,924      | 52,050      | 52,343      |
| Salaries and wages.. \$         | 45,774,976  | 56,073,812  | 151,662,761 | 157,703,868 | 169,246,531 |
| Gross value of products..... \$ | 215,674,246 | 298,034,843 | 825,857,664 | 836,148,393 | 954,137,651 |
| Net value of products..... \$   | 107,959,927 | 158,230,575 | 412,770,470 | 423,375,527 | 511,142,983 |
| Pulp produced... tons           | 3,619,345   | 5,290,762   | 7,675,079   | 7,852,998   | 8,473,014   |
| \$                              | 112,355,872 | 149,005,267 | 485,966,164 | 445,138,494 | 502,583,925 |
| Paper produced... tons          | 2,926,787   | 4,319,414   | 6,063,646   | 6,539,969   | 6,812,035   |
| \$                              | 173,305,874 | 225,836,809 | 582,346,842 | 641,459,838 | 710,153,826 |
| Pulp exported... tons           | 762,220     | 1,068,516   | 1,797,998   | 1,557,348   | 1,846,143   |
| \$                              | 39,059,979  | 60,930,149  | 211,564,384 | 171,504,163 | 208,555,549 |
| Newsprint exported..... tons    | 2,332,510   | 3,242,789   | 4,328,084   | 4,789,296   | 4,938,069   |
| \$                              | 133,370,932 | 151,360,196 | 383,122,743 | 440,054,067 | 485,746,314 |

The products of the industry fall into four broad categories: (1) pulp made for sale and conversion into products elsewhere than in the pulp and paper mills—besides being the raw material for paper, pulp is converted into a host of other products including rayon, photographic film, cellophane, nitro-cellulose and innumerable plastic materials; (2) newsprint, the raw material for the daily newspaper; (3) other papers, which include thousands of grades ranging from cigarette paper to banknote paper, from paperboard for milk-bottle caps to the finest coated and rag papers, from tissues to building papers; (4) paperboard, the standby of manufacturers and distributors.





*A jack ladder carries logs up to the slasher to be cut to four-foot lengths, a preliminary step in paper-making.*

Newsprint paper and market pulp account for about 80 p.c. of the output of the industry and about three-quarters of this production is exported. The other 20 p.c. of the output consists chiefly of paperboard and fine grades of paper which, for the most part, meet the needs of the domestic market. Only about 5 p.c. of that production is exported.

### *Pulp Production, by Provinces, 1948-50*

| Province                                                   | 1948                         |                                | 1949             |                    | 1950             |                    |
|------------------------------------------------------------|------------------------------|--------------------------------|------------------|--------------------|------------------|--------------------|
|                                                            | Quantity                     | Value                          | Quantity         | Value              | Quantity         | Value              |
|                                                            | tons                         | \$                             | tons             | \$                 | tons             | \$                 |
| Quebec.....                                                | 3,902,072                    | 227,425,545                    | 3,698,401        | 196,568,691        | 3,922,543        | 216,299,900        |
| Ontario.....                                               | 2,226,124                    | 153,870,832                    | 2,138,444        | 140,662,434        | 2,297,518        | 156,390,753        |
| British Columbia....                                       | 688,209                      | 49,220,655                     | 666,542          | 36,737,722         | 776,896          | 49,381,923         |
| Nova Scotia, New Brunswick, Manitoba and Newfoundland..... | 858,674 <sup>1</sup>         | 55,449,132 <sup>1</sup>        | 1,349,611        | 71,169,647         | 1,476,057        | 80,511,349         |
| <b>Canada.....</b>                                         | <b>7,675,079<sup>1</sup></b> | <b>485,966,164<sup>1</sup></b> | <b>7,852,998</b> | <b>445,138,494</b> | <b>8,473,014</b> | <b>502,583,925</b> |

<sup>1</sup> Newfoundland not included.



# Paper Production, by Provinces and Types, 1948-50

| Province and Type                                                | 1948                         |                                | 1949             |                    | 1950             |                    |
|------------------------------------------------------------------|------------------------------|--------------------------------|------------------|--------------------|------------------|--------------------|
|                                                                  | Quantity                     | Value                          | Quantity         | Value              | Quantity         | Value              |
|                                                                  | tons                         | \$                             | tons             | \$                 | tons             | \$                 |
| <b>Quebec—</b>                                                   |                              |                                |                  |                    |                  |                    |
| Newsprint.....                                                   | 2,696,838                    | 232,226,840                    | 2,704,995        | 241,981,534        | 2,766,159        | 261,176,678        |
| Book and writing...                                              | 85,009                       | 18,363,424                     | 71,744           | 16,807,909         | 76,517           | 19,935,645         |
| Wrapping.....                                                    | 119,816                      | 17,274,936                     | 116,469          | 16,781,488         | 122,632          | 20,372,400         |
| Paper boards.....                                                | 249,730                      | 25,497,589                     | 242,593          | 24,666,541         | 254,367          | 26,361,181         |
| Tissue paper.....                                                | 23,650                       | 4,946,990                      | 24,148           | 5,651,922          | 27,366           | 6,332,632          |
| Other paper.....                                                 | 65,580                       | 5,381,504                      | 62,114           | 4,863,463          | 68,590           | 5,569,977          |
| <b>Totals, Quebec...</b>                                         | <b>3,240,623</b>             | <b>303,691,283</b>             | <b>3,222,063</b> | <b>310,752,857</b> | <b>3,315,631</b> | <b>339,748,513</b> |
| <b>Ontario—</b>                                                  |                              |                                |                  |                    |                  |                    |
| Newsprint.....                                                   | 1,198,075                    | 105,004,195                    | 1,223,636        | 111,907,509        | 1,240,116        | 119,620,533        |
| Book and writing...                                              | 146,599                      | 26,815,544                     | 127,541          | 23,785,729         | 137,580          | 27,420,765         |
| Wrapping.....                                                    | 52,885                       | 9,279,389                      | 47,953           | 9,025,273          | 62,661           | 12,069,742         |
| Paper boards.....                                                | 396,138                      | 37,569,853                     | 376,619          | 36,723,734         | 417,443          | 42,960,135         |
| Tissue paper.....                                                | 25,779                       | 5,861,443                      | 25,438           | 5,697,912          | 27,538           | 6,383,701          |
| Other paper.....                                                 | 18,034                       | 2,652,251                      | 16,746           | 2,476,719          | 18,383           | 2,961,129          |
| <b>Totals, Ontario...</b>                                        | <b>1,837,510</b>             | <b>187,182,675</b>             | <b>1,817,933</b> | <b>189,616,876</b> | <b>1,903,721</b> | <b>211,416,005</b> |
| <b>British Columbia.</b>                                         | <b>425,104</b>               | <b>40,317,091</b>              | <b>471,619</b>   | <b>46,478,981</b>  | <b>498,286</b>   | <b>52,845,416</b>  |
| <b>Nova Scotia, New Brunswick, Manitoba and Newfoundland....</b> | <b>560,409<sup>1</sup></b>   | <b>51,155,793<sup>1</sup></b>  | <b>1,028,354</b> | <b>94,611,124</b>  | <b>1,094,397</b> | <b>106,143,892</b> |
| <b>Canada—</b>                                                   |                              |                                |                  |                    |                  |                    |
| Newsprint.....                                                   | 4,640,336                    | 402,099,718                    | 5,187,206        | 467,976,343        | 5,318,988        | 506,968,207        |
| Book and writing...                                              | 231,608                      | 45,178,968                     | 199,317          | 40,598,820         | 214,097          | 47,356,410         |
| Wrapping.....                                                    | 207,128                      | 31,036,805                     | 195,585          | 30,033,478         | 222,840          | 37,776,291         |
| Paper boards.....                                                | 817,432                      | 80,864,700                     | 797,023          | 80,632,075         | 876,894          | 92,531,711         |
| Tissue paper.....                                                | 69,686                       | 13,927,917                     | 68,340           | 13,950,007         | 76,742           | 15,885,792         |
| Other paper.....                                                 | 97,456                       | 9,238,734                      | 92,498           | 8,269,115          | 102,474          | 9,635,415          |
| <b>Grand Totals.</b>                                             | <b>6,063,646<sup>1</sup></b> | <b>582,346,842<sup>1</sup></b> | <b>6,539,969</b> | <b>641,459,838</b> | <b>6,812,035</b> | <b>710,153,826</b> |

<sup>1</sup> Newfoundland not included.

To-day, the Canadian pulp and paper industry is one of the major enterprises of the world. As a producer of newsprint, its output is five times that of any other country; as a producer of pulp, Canada is the second largest manufacturer and the second greatest exporter, contributing about one-third of the world's exports of that commodity.

The treatment of the forest as a slow-growing farm crop, by orderly cutting and re-seeding, will result in full utilization of that natural resource and, at the same time, maintain productive capacity. The average annual depletion of Canada's forests amounts to about 3,515,000,000 cu. feet of usable wood. Of this, about 2,776,000,000 cu. feet are utilized and the remainder destroyed by fire, insects and disease. If the forests are to remain unimpaired, all of this must be replaced and, while natural regrowth in the woodlands still appears to exceed the volume of annual cut, it is the aim of governments and industry alike to maintain the forests in that position through better methods of forest management and reforestation and through more adequate forest protection.

Forest research is an essential feature of the approach to forest management and protection. Research in silviculture, forest management, fire protection and forest air-survey methods are carried on by the Forestry Branch

## AVERAGE ANNUAL CONSUMPTION OF WOOD IN CANADA

(10 YEARS ENDED 1949)



of the Federal Department of Resources and Development at five experimental stations across the country. Supplementary studies are conducted in other areas in co-operation with the provincial governments and with industry. Two Federal Government forest-products laboratories supply basic and practical knowledge required for the best possible utilization of forest products and the Pulp and Paper Research Institute of Canada engages in research in the field of pulps and papers. Investigations in forest-insect problems and in forest pathology are conducted by the Science Service of the Federal Department of Agriculture.

lapped pulp as it comes from the pulp mill. In some cases the pulp is mixed with water and slushed through pipes to the paper mill.









# Mines and Minerals

THE mining industry has had a tremendous influence on Canada's growth and development. Fortunately, the large portion of the country not suited to agriculture is underlain by geological formations that are favourable to the occurrence of economic mineral deposits. In a metals age such as the present, this heritage is immeasurably valuable and it has been exploited at a rapidly expanding rate during the present century. Fifty years ago, in 1901, the value of all minerals produced in Canada was slightly over \$65,000,000. By 1915 this value had been doubled, redoubled by 1928 and doubled again by 1940 when the total passed the \$500,000,000 mark. This latter figure was almost doubled again in 1950 when the total exceeded \$1,000,000,000.

The value figures reflect, of course, not only the changes in the amounts and the prices of the various products but also the long-term trend in the value of the dollar itself. Nevertheless, the volume increase is almost as striking. In 1920 the index of the physical volume of output in the mining industry was 37.6 (1935-39=100), by 1930 it was up to 63.9 and in 1938 to 110.6. In 1941 the average was 134.5 and in 1950 it reached an all-time high of 147.5.

The number of employees in the mining and smelting industries was 120,400 in 1950 compared with 113,000 in 1941, 80,000 in 1930 and 62,000 in 1922. The actual tonnage of ore mined and rock quarried totalled 88,000,000 tons in 1950 compared with 65,000,000 in 1941, 35,000,000 in 1930 and 14,000,000 in 1922.

Canada leads the world in the production of nickel, platinum metals and asbestos. Excepting the Union of Soviet Socialist Republics and Yugoslavia for which statistics are not available, Canada stands second in production of gold, third in zinc, fourth in lead and copper, rates a high place in output of radium and uranium and is second in aluminum metal.

Canada produces enormous quantities of the five most widely used non-ferrous metals—nickel, copper, lead, zinc and aluminum. In 1949 she mined about 90 p.c. of the world's nickel, 12 p.c. of the copper, 11 p.c. of the lead and 17 p.c. of the zinc. In addition, from imported ores she made about 30 p.c. of the world's aluminum metal. She is the leading exporter in the world of nickel, zinc and aluminum and is third in regard to lead and copper. Combining the exports of all of these metals Canada ranked first among world countries by a large margin; the value of such exports in 1950 was \$360,000,000.

It is important to note the recent change in direction of exports of refined non-ferrous metals. In 1939 the United Kingdom took 76 p.c. of Canada's exports of copper, 79 p.c. of the zinc and 61 p.c. of the lead, whereas in 1950 the respective percentages were 48, 24 and 7. On the other hand purchases of copper by the United States rose from 1.5 p.c. to 38 p.c., of lead from practically nil to 91 p.c. and of zinc from 4 p.c. to 73 p.c. of the total exports.

Developments under way in the iron-ore industry give promise of greatly increased production in the next few years. At the end of 1951 the Wabana mine on Bell Island, Newfoundland, was being completely mechanized

so that the output of about 1,750,000 tons will be increased to 2,500,000 tons in 1952. The ore beds here stretch out under the sea and although their exact extent is not known it appears that several hundred million tons are available. At the Helen mine in northern Ontario, production totals about 1,250,000 tons of sinter a year. Ore reserves here are estimated at 100,000,000 tons and a similar tonnage has been outlined at Siderite Hill, three miles northeast of the Helen mine. At Marmora in southeastern Ontario many million tons of magnetite ore have been outlined and plans made to bring the property into production. In 1951, output at Steep Rock in northwestern Ontario, which approximated 1,750,000 tons in 1951, is expected to reach at least 3,000,000 tons in 1955. The 1951 highlight in connection with the big Quebec-Labrador development was the speeding up of construction of the 360-mile railway from the St. Lawrence river. Proven ore reserves increased to 417,000,000 tons. The first shipment of ore is planned for 1954 and the initial annual objective of 10,000,000 tons will likely be reached shortly thereafter.

Continued success in the discovery of crude petroleum in Western Canada, intensive exploration activity, and the vast sedimentary areas still to be tested foreshadow a great increase in Canada's oil production. In the first nine months of 1951 there were no less than 33 new oil discoveries and about 50 gas discoveries. There were probably 140 geophysical parties at work in this area and expenditures on development and exploration totalled about \$150,000,000 for 1951. Proven reserves of crude oil increased thirty-fold in the past six years rising from 45,000,000 bbl. in 1946 to 1,500,000,000 bbl. in 1951. About 630 new wells were completed in 1951 bringing the production potential of operating wells to about 200,000 bbl. per day. The daily production in August 1951 was 180,000 bbl.

The first phase of the distribution of western Canadian oil—the provision of supplies to the Prairie Provinces and to part of Eastern Canada—was well under way at the end of 1951. Prairie refining capacity had been more than doubled with a potential set at about 105,000 bbl. per day in a year or two. The 1,126-mile Edmonton-Superior pipe line was completed and shipments from the Head of the Lakes to Sarnia, Ont., via lake tanker started in April 1951. Refinery capacity at Sarnia is being increased and huge storage facilities added at both Superior, U.S.A., and Sarnia. The capacity of the pipe line, at present 70,000 bbl. per day in its Superior section, was also being increased by the addition of more pumping stations and by looping some sections, and two more lake tankers were under construction. By 1952 it should be possible to move an average of about 55,000 bbl. per day of western oil into Ontario. The second phase of the development of markets for western Canadian oil was assured in mid-December 1951 when the Board of Transport Commissioners granted the Trans Mountain Oil Pipe Line Company permission to build a 695-mile pipe line from Edmonton through Jasper Park, Yellowhead Pass to Kamloops, to Merritt, to Hope and down the Fraser Valley to Burnaby adjacent to Vancouver. Work will commence in 1952 and completion is scheduled for 1953. Estimated cost is \$80,000,000 and capacity 75,000 bbl. daily.

Natural gas also appears to be destined to play an important role in future fuel requirements of Canada. Reserves in Western Canada are now estimated at 8,000,000,000,000 cu. feet, and several companies are investigating the possibility of piping gas to urban centres in Eastern Canada and in British Columbia.

**Provincial Distribution of Production.**—The more important minerals in *Newfoundland's* contribution of 2.5 p.c. to Canada's mineral production in 1950 were, on a value basis, zinc, iron ore, lead, copper, fluor spar, silver and gold. The output of fluor spar far exceeded that credited to any other part of Canada and only Ontario produced a greater quantity of iron ore. Coal accounted for 84 p.c. of the value of *Nova Scotia's* mineral production in 1950. The balance was made up of gypsum, structural materials, barite, salt and silica brick. Nova Scotia produces about 98 p.c. of Canada's output of barite, 87 p.c. of the total output of gypsum and 34 p.c. of the coal. *New Brunswick's* mineral resources are not large. Coal mining is carried on on a moderate scale and petroleum, natural gas and gypsum are obtained in limited quantities.

*Quebec* ranks second among the provinces in mineral output and produces a wide variety of minerals. Its production in 1950 reached a peak value and made up 21 p.c. of the total mineral output of Canada. Extensive mining developments have taken place in the western part of the Province where gold, copper and zinc are recovered in large quantities with such other metals as selenium, tellurium and silver obtained as by-products. Until very recently all the asbestos mined in Canada came from the extensive and high-grade deposits in the Eastern Townships. Quebec leads also in the production of a

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*Drilling operations at the titanium-rich iron-ore deposits of the Lake Allard district in Quebec. The refining of this ore will be done at Sorel where the new plant is nearing completion (see pp. 42-43).*



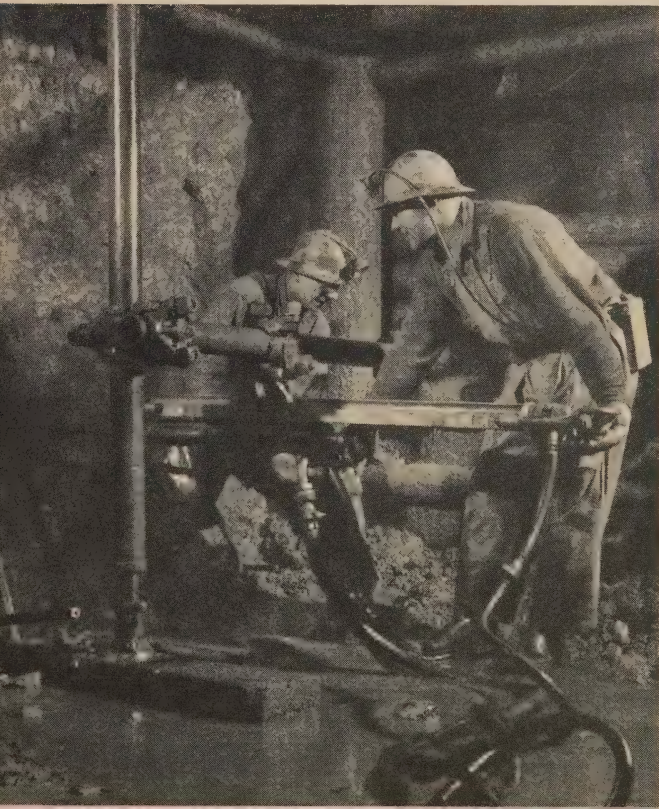


number of other industrial non-metallics such as brucitic limestone, feldspar and iron oxides which are obtained in smaller amounts. No coal, petroleum or iron ore is mined at present in Quebec but development is under way of the huge deposits of high-grade hematite on the Quebec-Labrador boundary. Also the titanium-rich iron-ore deposits of the Lake Allard district will eventually yield 500 tons of iron a day and 700 tons of titanium concentrate.

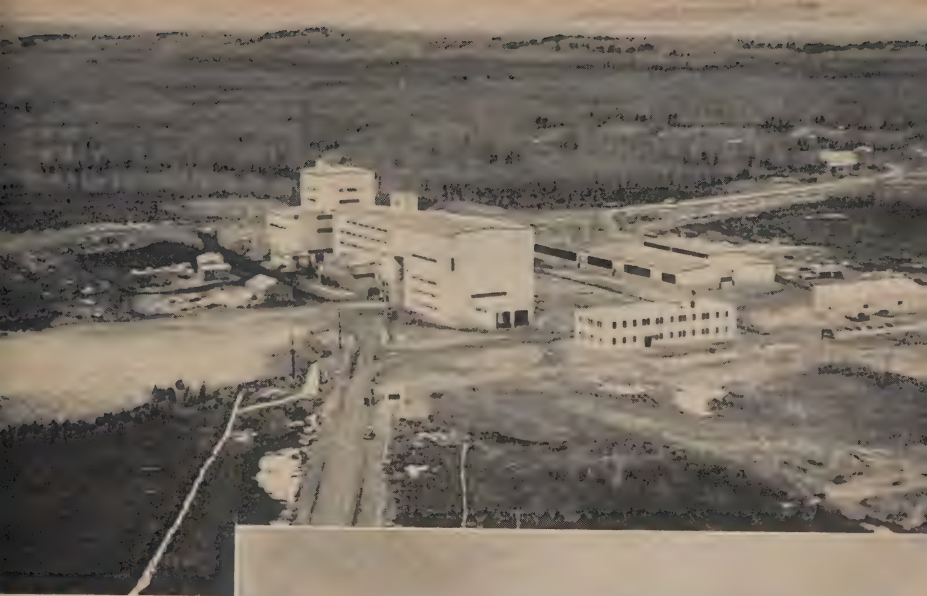
*Ontario* has long ranked first among the provinces in mineral production. In 1950 its output reached an all-time high and accounted for 35 p.c. of the entire Canadian mining output. Metals are the main factor in Ontario's mineral production, forming 82 p.c. of its total in 1950 and, in fact, 49 p.c. of the total metallic production of Canada. In that year Ontario produced 56 p.c. of Canada's gold, all of the nickel and platinum metals and a good part of the copper and iron ore. In the field of non-metallics, Ontario also led in output of salt, quartz, clay products and structural materials and was the only producer of nepheline syenite and graphite.

In *Manitoba's* mineral output, copper, gold, zinc and silver figure prominently among the metals, gypsum and salt among the industrial minerals and cement among the structural materials. The bulk of the metals comes from the great copper-gold-zinc-silver mine at Flin Flon, which lies partly in Manitoba and partly in Saskatchewan. From this mine also comes *Saskatchewan's* output of metals. The leading mineral in Saskatchewan's production in 1950 was copper followed in order by zinc, coal, gold, sodium sulphate, crude petroleum and silver.

*Alberta's* mineral output is comprised almost entirely of fuels and structural materials. Alberta ranks fourth among the provinces in value of mineral



Underground drillers cut powder holes in such a way that the rock will be broken up but supporting timbers will not be damaged. These drillers are working in the rich silver-lead-zinc deposits in the Mayo district of Yukon.



The mill at the Munro asbestos mine in northern Ontario has been in operation since mid-1950. Asbestos from this mine is of exceptionally good quality and will substantially augment the supply being taken from the world's largest asbestos mine in eastern Quebec.



The Munro mine is an open pit—ore is first blasted from the rim and then broken up by the secondary driller.



production and in 1950 accounted for more than 94 p.c. of the entire Canadian output of petroleum, nearly 86 p.c. of the natural gas and over 42 p.c. of the coal. Other than fuels and structural materials, salt and a trace of gold are the only minerals produced.

Metals predominate in *British Columbia's* mineral output, accounting for nearly 83 p.c. of the provincial total value in 1950 and for more than 18 p.c. of the value of Canada's entire metal output. British Columbia ranked third among the provinces in value of output in 1950 and was credited with all the tin, antimony and indium produced in Canada, 80 p.c. of the lead, 77 p.c. of

the cadmium, 46 p.c. of the zinc, 36 p.c. of the silver, 8 p.c. of the copper and 7 p.c. of the gold. Coal is the only fuel currently produced; the Province supplied 9 p.c. of Canada's coal output in 1950.

Gold is the leading factor in the mineral output of *Yukon*, followed by silver, lead and zinc. A small amount of coal is also mined. In the *Northwest Territories*, too, gold makes up the major part of the mineral output, a small part being credited to petroleum and natural gas. Data on the production of pitchblende products in the Territories are not available for publication.

### Mineral Production, by Provinces, 1948-50

| Province or Territory              | 1948               |               | 1949               |               | 1950                 |               |
|------------------------------------|--------------------|---------------|--------------------|---------------|----------------------|---------------|
|                                    | Value              | P.C. of Total | Value              | P.C. of Total | Value                | P.C. of Total |
|                                    | \$                 |               | \$                 |               | \$                   |               |
| Newfoundland.....                  | ...                | ...           | 27,583,615         | 3.0           | 25,824,047           | 2.5           |
| Nova Scotia.....                   | 56,400,245         | 6.9           | 56,092,830         | 6.2           | 59,482,173           | 5.7           |
| New Brunswick.....                 | 7,003,285          | 0.9           | 7,134,009          | 0.8           | 12,756,975           | 1.2           |
| Quebec.....                        | 152,038,867        | 18.5          | 165,021,513        | 18.3          | 220,176,517          | 21.0          |
| Ontario.....                       | 294,239,673        | 35.8          | 323,368,644        | 35.9          | 366,801,525          | 35.1          |
| Manitoba.....                      | 26,081,349         | 3.2           | 23,839,638         | 2.6           | 32,691,173           | 3.1           |
| Saskatchewan.....                  | 34,517,208         | 4.2           | 36,054,536         | 4.0           | 35,983,923           | 3.4           |
| Alberta.....                       | 93,211,229         | 11.4          | 113,728,425        | 12.6          | 135,758,940          | 13.0          |
| British Columbia....               | 148,223,614        | 18.1          | 136,385,911        | 15.2          | 138,888,205          | 13.3          |
| Yukon.....                         | 4,265,910          | 0.5           | 5,099,176          | 0.6           | 9,035,696            | 0.9           |
| Northwest Territories <sup>1</sup> | 4,267,485          | 0.5           | 6,801,729          | 0.8           | 8,050,899            | 0.8           |
| <b>Totals<sup>1</sup>.....</b>     | <b>820,248,865</b> | <b>100.0</b>  | <b>901,110,026</b> | <b>100.0</b>  | <b>1,045,450,073</b> | <b>100.0</b>  |

<sup>1</sup> Excluding pitchblende products.

**Production in 1950.**—Production from Canada's mines reached a new peak value in 1950 at \$1,045,000,000, nearly 16 p.c. more than in 1949. Part of this increase was due to higher prices for mine products but mostly it was due to actual increases in the tonnages of minerals shipped. The percentage gains in output volume compared with 1949 were as follows: asbestos, 52; crude petroleum, 36; silver, 32; stone, 30; gypsum, 22; natural gas, 12; lime, 10; zinc, 9; gold, 8; lead, 4; salt, 15; and cement, 5. The tonnage of iron ore was slightly below the recovery in 1949 and nickel production was down about 5 p.c.

Recoveries of gold at 4,400,000 oz. were the greatest since 1942. On Oct. 1, 1950, the Government freed the Canadian dollar permitting it to find its own level in relation to the United States dollar. This resulted in an average price of \$36.66 for the last three months of the year as against \$38.50 for the first nine months. The total value of production in 1950 was \$169,000,000. Gold was again the leading mineral product in regard to value accounting for 16 p.c. of the total of all items.

Silver production at 23,200,000 oz. was the highest since 1940. There was a renewed interest in workings in the Cobalt district of Ontario with the result that the output rose 72 p.c. for that Province.

Copper output at 264,200 tons was slightly higher in quantity than in 1949 and the value was up 18 p.c. to \$123,000,000. Lead at 165,700 tons was up 4 p.c. in quantity but the value was down slightly to \$47,900,000. Zinc was up 9 p.c. in quantity and 28 p.c. in value to 313,200 tons at \$98,000,000.



Many of the non-metallic minerals and structural materials reached all-time highs in 1950. Asbestos, gypsum, salt, crude petroleum, natural gas, fluorspar, clay products, cement, lime and stone were all in this category. The production of coal in 1950 was the highest on record amounting to 19,100,000 tons.

### Mineral Production, by Kinds, 1949 and 1950

| Item                                       | 1949        |                    | 1950        |                      |
|--------------------------------------------|-------------|--------------------|-------------|----------------------|
|                                            | Quantity    | Value              | Quantity    | Value                |
|                                            |             | \$                 |             | \$                   |
| <b>METALLICS</b>                           |             |                    |             |                      |
| Bismuth..... lb.                           | 102,913     | 210,972            | 191,621     | 431,147              |
| Cadmium..... "                             | 846,541     | 1,735,409          | 848,406     | 1,968,302            |
| Calcium..... "                             | 520,609     | 1,041,218          | 1           | 1                    |
| Cobalt..... "                              | 619,065     | 952,469            | 583,806     | 964,003              |
| Copper..... "                              | 526,913,632 | 104,719,151        | 528,418,296 | 123,211,407          |
| Gold..... fine oz.                         | 4,123,518   | 148,446,648        | 4,441,227   | 168,988,687          |
| Iron ore..... ton                          | 3,675,096   | 21,203,907         | 3,605,261   | 23,413,547           |
| Lead..... lb.                              | 319,549,865 | 50,488,879         | 331,394,128 | 47,886,452           |
| Nickel..... "                              | 257,379,216 | 99,173,289         | 247,317,867 | 112,104,685          |
| Palladium, rhodium, iridium, etc. fine oz. | 182,233     | 8,289,915          | 148,741     | 7,578,144            |
| Platinum..... "                            | 153,784     | 11,603,002         | 124,571     | 10,255,929           |
| Selenium..... lb.                          | 318,225     | 652,361            | 261,973     | 633,975              |
| Silver..... fine oz.                       | 17,641,493  | 13,098,808         | 23,221,431  | 18,767,561           |
| Tin..... lb.                               | 619,117     | 633,047            | 796,403     | 828,259              |
| Zinc..... "                                | 576,524,097 | 76,372,147         | 626,454,598 | 98,040,145           |
| Other..... "                               | ...         | 346,036            | ...         | 2,166,097            |
| TOTALS, METALLICS.....                     | ...         | 538,967,258        | ...         | 617,238,340          |
| <b>FUELS</b>                               |             |                    |             |                      |
| Coal..... ton                              | 19,120,046  | 110,915,121        | 19,139,112  | 110,140,399          |
| Natural gas..... M cu. ft.                 | 60,457,177  | 11,620,302         | 67,822,230  | 6,433,041            |
| Peat..... ton                              | 56          | 560                | 58          | 580                  |
| Petroleum..... bbl.                        | 21,305,348  | 61,118,490         | 29,043,788  | 84,619,937           |
| TOTALS, FUELS.....                         | ...         | 183,654,473        | ...         | 201,193,957          |
| <b>OTHER NON-METALLICS</b>                 |             |                    |             |                      |
| Asbestos..... ton                          | 574,906     | 39,746,072         | 875,344     | 65,854,568           |
| Barite..... "                              | 47,138      | 557,662            | 77,177      | 750,378              |
| Feldspar..... "                            | 36,948      | 428,502            | 35,548      | 428,401              |
| Fluorspar..... "                           | 64,477      | 1,592,908          | 64,213      | 1,553,004            |
| Graphite..... "                            | 2,147       | 212,496            | 3,586       | 390,815              |
| Gypsum..... "                              | 3,014,249   | 5,423,690          | 3,666,336   | 6,707,506            |
| Magnesitic dolomite and brucite..... "     | ...         | 1,536,200          | ...         | 1,717,879            |
| Mica..... lb.                              | 3,490,556   | 108,458            | 3,879,209   | 252,611              |
| Nepheline syenite..... ton                 | 78,783      | 623,002            | 65,638      | 842,886              |
| Peat moss..... "                           | 80,249      | 2,376,849          | 75,195      | 2,256,870            |
| Quartz..... "                              | 1,722,476   | 1,588,531          | 1,730,695   | 1,740,268            |
| Salt..... "                                | 749,015     | 5,566,725          | 858,896     | 7,011,306            |
| Sodium sulphate..... "                     | 120,259     | 1,614,731          | 130,730     | 1,615,867            |
| Sulphur..... "                             | 261,871     | 2,039,384          | 301,172     | 2,189,660            |
| Other..... "                               | ...         | 1,170,006          | ...         | 1,409,545            |
| TOTALS, OTHER NON-METALLICS...             | ...         | 64,585,216         | ...         | 94,721,564           |
| <b>STRUCTURAL MATERIALS</b>                |             |                    |             |                      |
| Clay products (brick, tile, etc.).....     | ...         | 17,981,709         | ...         | 21,790,888           |
| Cement..... bbl.                           | 15,916,564  | 32,901,936         | 16,741,826  | 35,894,124           |
| Lime..... ton                              | 1,018,823   | 11,309,820         | 1,124,188   | 12,281,084           |
| Sand and gravel..... "                     | 63,356,308  | 31,181,541         | 73,095,163  | 36,434,759           |
| Stone..... "                               | 13,928,039  | 20,528,073         | 18,087,064  | 25,895,357           |
| TOTALS, STRUCTURAL MATERIALS...            | ...         | 113,903,079        | ...         | 132,296,212          |
| <b>Grand Totals.....</b>                   | ...         | <b>901,110,026</b> | ...         | <b>1,045,450,073</b> |

<sup>1</sup> Included in "Other" metallics.



# Water Powers

**W**ATER-POWER resources of importance exist in virtually every part of Canada, the exception being the prairies of the middle west. The general topography of the country, together with adequate precipitation, results in numerous fast-flowing rivers with many falls and rapids capable of development. In British Columbia, where precipitation is high, the rivers flowing down the Pacific slope of the Rocky Mountains offer many fine power sites. Alberta, although a prairie province, also has mountain streams from the Rockies as well as considerable reserves of undeveloped power on its large northern rivers. The great Canadian Shield of Precambrian rock, which forms an arc around Hudson Bay and covers the eastern half of the Northwest Territories, part of northern Saskatchewan and a large part of Manitoba, Ontario and Quebec, is a rough, forest-covered area containing innumerable lakes and rivers with immense power possibilities. The Great Lakes-St. Lawrence River System also adds tremendously to the power resources of Ontario and Quebec. Precipitation in the Maritimes is fairly heavy and the rivers, while not large, afford numerous possibilities for moderate-sized developments. On the Island of Newfoundland the high rate of run-off on the short rivers constitutes an appreciable source of power and in Labrador large resources are available.

*Available and Developed Water Power, by Provinces, Dec. 31, 1951*

| Province or Territory                | Available 24-Hour Power<br>at 80 p.c. Efficiency |                                     | Turbine<br>Installation |
|--------------------------------------|--------------------------------------------------|-------------------------------------|-------------------------|
|                                      | At<br>Ordinary<br>Minimum<br>Flow                | At<br>Ordinary<br>Six-Month<br>Flow |                         |
|                                      | h.p.                                             | h.p.                                | h.p.                    |
| Newfoundland.....                    | 1,135,000                                        | 2,585,000                           | 279,140                 |
| Prince Edward Island.....            | 500                                              | 3,000                               | 2,299                   |
| Nova Scotia.....                     | 25,500                                           | 156,000                             | 150,960                 |
| New Brunswick.....                   | 123,000                                          | 334,000                             | 133,111                 |
| Quebec.....                          | 8,459,000                                        | 13,064,000                          | 6,753,621               |
| Ontario.....                         | 5,407,200                                        | 7,261,000                           | 3,718,505               |
| Manitoba.....                        | 3,309,000                                        | 5,344,000                           | 596,400                 |
| Saskatchewan.....                    | 542,000                                          | 1,082,000                           | 111,835                 |
| Alberta.....                         | 507,800                                          | 1,258,000                           | 207,825                 |
| British Columbia.....                | 7,023,000                                        | 10,998,000                          | 1,358,808               |
| Yukon and Northwest Territories..... | 382,500                                          | 814,000                             | 28,450                  |
| <b>Canada.....</b>                   | <b>26,914,500</b>                                | <b>42,899,000</b>                   | <b>13,340,954</b>       |

Under present hydraulic practice, the water-power resources of Canada would allow an economic turbine installation of more than 55,000,000 h.p. Slightly over 24 p.c. of this potential is now being utilized.

The availability of sufficient low-cost hydro-electric energy has been fundamental in the development of Canada's great basic manufacturing industries, including the pulp and paper industry, one of the world's major enterprises, which absorbs enormous quantities of hydraulic and hydro-electric power; mining, milling and refining of base and precious metals together with their fabrication; electro-chemical industries; and also lighter manufacturing such as



food-processing and textile production. The high level of industrial activity throughout Canada in recent years, as well as increased commercial, domestic and rural consumption, has resulted in continually expanding demands for hydro-electric energy. In 1951, the output of primary electric power by central electric stations exceeded that for 1950 by about 13 p.c., and construction of both hydro-electric and steam-electric plants is being accelerated to meet these rapidly increasing needs.

**Provincial Distribution of Water Power.**—*Prince Edward Island, Nova Scotia and New Brunswick*, despite the lack of large rivers, have valuable sources of hydraulic power, a considerable proportion of which has been developed. Estimates give *Newfoundland* a potential of about 500,000 h.p., on the Island of which 40 p.c. has been developed; in Labrador, the Hamilton River is outstanding as a potential source of power.

*Quebec* ranks highest in available water-power resources, having over 30 p.c. of the total recorded for all Canada; it has made remarkable progress and its present installation of 6,753,621 h.p. represents over 50 p.c. of the total for Canada. The Saguenay River Shipshaw development of 1,200,000 h.p. and the St. Lawrence River Beauharnois Plant of 742,000 h.p. are the two largest in the country. The Province of *Ontario* has extensive water-power resources and in total hydro-power developed is exceeded only by Quebec. The Hydro-Electric Power Commission of Ontario operates 64 hydro-electric stations with a total capacity of more than 3,000,000 h.p., the largest being the Niagara River Queenston plant of 560,000 h.p. A large amount of power also is purchased from Quebec.

*Manitoba* has more water-power resources and has developed them to a greater extent than either of the other Prairie Provinces. Practically all the developed sites are located on the Winnipeg River. These supply not only Winnipeg and its suburban areas but, through the transmission network of the Manitoba Power Commission, power is distributed to more than 350 municipalities and a large part of the rural areas of southern Manitoba where farm electrification is a primary objective. In *Saskatchewan* water-power development is confined to the northern mining districts. The southern portions of Saskatchewan and Alberta are lacking in water-power resources but have large fuel reserves. In *Alberta*, present developments are located in the Bow River Basin and serve Calgary and numerous other municipalities between the International Boundary and the area north of Edmonton.

*British Columbia* ranks second among the provinces in available water-power resources and its hydraulic development is exceeded only by Quebec and Ontario. Present developments are practically all located in the southern part of the Province in the Fraser and Columbia River Basins. In *Yukon* and the *Northwest Territories*, power has been developed for local mining purposes.

**Hydro-Electric Construction during 1951.**—Activity in the development of water-power sites for the production of electric energy continued at a high level during 1951 when a total of 881,250 h.p. of new turbine capacity was brought into operation. At the end of the year, plants with a total capacity of roughly 1,700,000 h.p. were under advanced construction for operation in 1952-53 while preliminary construction was under way on other plants, for operation by 1955 or earlier, which were tentatively rated at nearly 2,000,000 h.p.

*Ontario.*—The Hydro-Electric Power Commission of Ontario completed the greater part of its current program of construction on the Ottawa River, bringing into operation the final unit of 62,000 h.p. in the 496,000-h.p. Des Joachims plant above Pembroke and the remaining six units of 21,000 h.p. each in the 168,000-h.p. Chenaux plant north of Renfrew. Operation of the first two units of the eight-unit 272,000-h.p. La Cave development on the Ottawa River was scheduled for January 1952 and completion of the plant before the end of the year. In connection with a new plant on the Niagara River at Queenston, which will have a capacity of 735,000 h.p. in seven units, tunnelling and other operations are actively under way and initial operation is expected in 1954. The Commission also brought into operation two large steam-electric plants, one at Toronto with an initial capacity of 188,000 kw. and one at Windsor of 132,000 kw.

The Great Lakes Power Company had under construction, for operation in 1952, a development of 15,000 h.p. on the Michipicoten River.

*Quebec.*—Hydro-electric development was very active in the Province of Quebec in 1951 with a total of 461,700 h.p. coming into operation and with other plants under construction. The largest single addition to new capacity throughout Canada in 1951 was that of 223,000 h.p. in four units in the Beauharnois No. 2 plant on the St. Lawrence River by the Quebec Hydro-Electric Commission. This plant, which has a present installation of 333,000 h.p. is scheduled for completion to 666,000 h.p. by 1954. The Commission

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By 1955, Ontario will be enjoying the benefits of an additional 735,000 h.p. generated by the waters of the Niagara River. Construction of the Sir Adam Beck-Niagara Generating Station No. 2 was started in January 1951 and by late summer had reached the shown stage, with openings for the seven giant penstocks visible. The construction force required for this \$182,000,000 job will reach almost 5,000 by 1952.





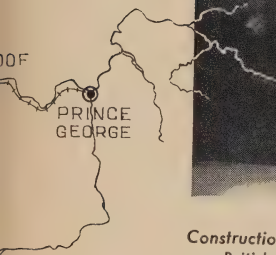
*Power project in British Columbia will divert the headwaters of the Fraser River to a power plant on the coast. The Nechako River dam (1) will stop the eastward flow, causing the waters in the drainage area (2) to flow west through a ten-mile tunnel (3) with a drop of 2,600 ft. to the power house (4) constructed inside a mountain. A 48-mile transmission line (5) will carry the power to the smelter (6).*

is also undertaking a new development of 16,000 h.p. at Rapid II on the Ottawa River. A major addition of 195,000 h.p. was contributed by the completion of the La Trenche plant of the Shawinigan Water and Power Company on the St. Maurice River; this plant now has an installed capacity of 325,000 h.p. The Northern Quebec Power Company brought into operation a new unit of 35,000 h.p. in its Quinze plant, upper Ottawa River, raising its total capacity to 85,000 h.p. The Pembroke Electric Company Limited completed the installation of two new units of 3,000 h.p. each in its Waltham plant on the Black River.

A number of new developments came under active construction in 1951. The Aluminum Company of Canada is constructing two new plants on the Peribonka River, one at Chute du Diable and one at Savanne Rapids; each of these plants will have a capacity of 275,000 h.p. and initial operation is expected in 1952. Price Brothers and Company Limited is building two plants on the Shipshaw River, one of 70,000 h.p. and one of 9,000 h.p., with operation scheduled for 1953. The Quebec North Shore Paper Company is constructing a plant on the Manicouagan River near its mouth, with the first unit of 50,000 h.p. expected to be in operation in 1953 and the second in 1954; ultimate capacity is 300,000 h.p. The Ste. Marguerite Power Company has under construction on the Ste. Marguerite River a plant of 25,500 h.p., of which the first unit of 8,500 h.p. will be brought into operation in 1953.

*British Columbia.*—Moderate additions to installed capacity were made during 1951. The British Columbia Power Commission brought into operation its new Whatshan Plant of 33,000 h.p. on the Lower Arrow Lake and the





*Construction is under way on the power development required for British Columbia's aluminum project at Kitimat. This barren mountain wall, which divides the coast from the high interior plateau, makes the development possible. It is over this type of country that the transmission line will run.*

British Columbia Electric Company Limited completed the modernization of its Buntzen No. 1 plant by replacing seven units totalling 28,200 h.p. by one unit of 70,000 h.p. The Aluminum Company of Canada began preliminary construction on the development, by 1954-55, of about 1,000,000 h.p. through the diversion of the headwaters of the Fraser River to a powerhouse on the coast. The Consolidated Mining and Smelting Company has undertaken the development of 205,000 h.p. on the Pend d'Oreille River near its junction with the Columbia River; initial operation is scheduled for 1953. The British Columbia Electric Company Limited is building a new plant of 82,000 h.p., in one unit under 2,000-ft. head, at Jones Lake for 1952 operation and also has placed an order for a new unit of 62,000 h.p. in its Bridge River plant. The British Columbia Power Commission has under construction for 1952 operation a plant of 4,000 h.p. on the Clowhom River and is undertaking the installation of two additional units each of 28,000 h.p. in the John Hart plant on the Campbell River, Vancouver Island, for 1953-54 operation. The Commission has purchased the Puntledge plant of Canadian Collieries Limited on Vancouver Island and will increase the capacity to 23,000 h.p. from the present 12,000 h.p. Two smaller developments completed in 1951 were 1,000 h.p. by Mastodon Zinc Mines and 800 h.p. by Western Uranium Cobalt Mines.

In *Yukon*, the Northwest Territories Power Commission is proceeding with the construction of a plant with an initial capacity of 3,000 h.p. on the Mayo River for 1952 operation.

*Prairie Provinces.*—The installed capacity of water-power plants in Alberta was practically doubled in 1951 by completion of the Spray Lakes scheme by Calgary Power Limited. This development involves three plants: Spray Lakes, 62,000 h.p.; Three Sisters, 3,600 h.p.; and Rundle, 23,000 h.p. The Company also installed an additional unit of 12,000 h.p. in its Kananaskis plant on the Bow River. Investigations towards the development of a site on the Athabaska River north of Edmonton were carried out by other interests.

No new hydraulic developments were made in Saskatchewan but the provincially owned Saskatchewan Power Corporation made an addition to its fuel-generating station at Estevan of 15,000 kw. and was enlarging its Saskatoon plant by 25,000 kw. for 1952 operation.

The Government of Manitoba brought the Pine Falls plant of 114,000 h.p. on the Winnipeg River into initial operation by completing two units each of 19,000 h.p.; the remaining units are under installation for 1952 operation. Sherritt-Gordon Mines made good progress in the development of 7,000 h.p. on the Laurie River for 1952 operation. The Winnipeg Electric Company is installing the sixth and final unit of 37,500 h.p. in its Seven Sisters Plant on the Winnipeg River and operation is anticipated late in 1952.

*Atlantic Provinces.*—The Newfoundland Light and Power Company brought into operation early in 1951 its new plant of 13,000 h.p. on the Mobile River and also completed the installation of a new unit of 3,350 h.p. in its Tors Cove plant; the Company also has under construction for 1952-53 operation two plants each of 7,500 h.p., one at Cape Broyle and one on the Horse Chops River. The Labrador Mining and Exploration Company is planning the development of 12,000 h.p. on the Ashuanipi River, a tributary of the Hamilton River in Labrador.

In Prince Edward Island, the Maritime Electric Company completed the installation of a new unit of 7,500 kw. in its steam plant at Charlottetown.

The larger additions to generating capacity in Nova Scotia were steam plants including 20,000 kw. at Halifax, 18,750 kw. at Sydney and 10,000 kw. at Cantley's Point. The Nova Scotia Light and Power Company was constructing a new water-power plant of 4,000 h.p. at White Rock on the Gaspereau River and the Nova Scotia Power Commission a plant of 8,600 h.p. on the Bear River for 1952 operation.

The New Brunswick Electric Power Commission has under active construction a development of 27,000 h.p. on the Tobique River for 1953 operation. During 1951 the Commission enlarged the capacity of its steam plant at Grand Lake by 6,250 kw.

## **Central Electric Stations**

Central electric stations are companies, municipalities or individuals selling or distributing electric energy generated by themselves or purchased for resale. They are divided into two classes according to ownership: (1) commercial—those privately owned and operated by companies or individuals, and (2) municipal—those owned and operated by municipalities or provincial governments. These are subdivided according to the kind of power used into (a) hydraulic, (b) fuel and (c) non-generating. This last sub-class purchases practically all the power it resells; a few of these stations have generating equipment that is held for emergencies. The hydraulic stations contain water turbines and wheels with approximately 87 p.c. of the total capacity of hydro installations in all industries in Canada. The generators driven by this hydraulic equipment generate 97 p.c. of the total output of all central electric stations. In 1949 the fuel stations numbered 309 and 44 hydraulic stations had thermal auxiliary equipment.

Revenues of central stations in 1949 amounted to \$280,311,624 and 2,619,831 domestic customers were served, representing approximately two-thirds of all families in Canada, both urban and rural.

Rural electrification has been extended rapidly during the past ten years, lessening or even eliminating many of the farmer's time problems and directly aiding in increasing agricultural production.



linemen at work on a new rural line. The average farm consumption of electricity has increased by 100 p.c. since 1939.



Average monthly output of central electric stations for 1929, 1939 and 1949-51 was as follows:—

|                      | <u>1929</u>      | <u>1939</u>      | <u>1949</u>      | <u>1950<sup>1</sup></u> | <u>1951<sup>1</sup></u> |
|----------------------|------------------|------------------|------------------|-------------------------|-------------------------|
|                      | ('000 kwh.)      |                  |                  |                         |                         |
| Generated by—        |                  |                  |                  |                         |                         |
| Water power.....     | 1,441,203        | 2,321,815        | 3,757,024        | 4,089,790               | 4,630,820               |
| Thermal engines..... | 27,622           | 40,811           | 132,411          | 152,087                 | 152,486                 |
| TOTALS.....          | <u>1,468,825</u> | <u>2,362,626</u> | <u>3,889,435</u> | <u>4,241,877</u>        | <u>4,783,306</u>        |

<sup>1</sup> Including Newfoundland.

Electric energy is exported from Canada only under licence and an export tax of 0.03 cent per kwh. is levied. Exports amounted to 1,756,752,000 kwh. in 1949, 1,925,780,000 kwh. in 1950 and 2,375,420,000 kwh. in 1951.





## Fisheries

CANADA'S commercial fishing industry produces nearly 2,000,000,000 lb. of fish annually. This tremendous catch comes from the fishing grounds—said to be the most prolific in the world—off the Atlantic and Pacific coasts, the Great Lakes and other large bodies of water in inland areas.

The importance of Canada's commercial fisheries in the economic structure of the nation has been growing steadily. Ten years ago, the value of the products marketed was only slightly more than \$45,000,000. To-day, it totals nearly \$200,000,000. Although the quantity of fish landed increased considerably during that period, a good part of the advance in marketed value was due to the higher selling prices of many species and the development of those products that command higher prices. Also, the status of the commercial fisheries of the nation as a whole was significantly altered when Newfoundland became a province of Canada. In fact, Newfoundland now accounts for approximately one-third of the total annual catch. New Brunswick, Nova Scotia, Prince Edward Island and Quebec account for another third, and British Columbia and the inland provinces for the remaining third. Two-thirds of the catch, then, comes from the waters of the northwest Atlantic off Canada's eastern shores. Here, the Continental Shelf runs out under water for many miles, providing a rich feeding ground for marine life. The Banks, a submerged series of hills stretching from Cape Cod to the Grand Bank of Newfoundland, attract fishermen not only from Canada and the United States but from several European countries. The Banks were fished for cod, haddock, halibut and other groundfish even before the shores of Canada were first visited by explorers. Despite this fact, there is no sign of reduction in the stocks of fish but, in order to prevent such occurrence, a commission has been set up under the International Northwest Atlantic Fisheries Treaty, of which Canada is a signatory, to detect any indications of over-fishing.

The deep-sea fishermen on the Atlantic coast operate from otter trawlers, draggers and schooners many miles offshore, while the inshore fishermen work with fast motor boats, long-line for cod and flatfish, trap lobsters, spear swordfish and net herring. Cod and lobster are the most important sources of revenue for the industry on the Atlantic coast, followed by haddock, halibut, herring, sardines and mackerel.

On the western side of the continent, British Columbia's coast line borders waters abounding in salmon, halibut, herring and many other fish. The salmon fishery is a highly profitable enterprise and is the main reason why British Columbia leads the other provinces in annual marketed value of fisheries production.

Canada's important freshwater species are lake trout, pickerel, whitefish, tullibee, saugers and pike. About half the production comes from the Great Lakes of Ontario, one-quarter from the lakes of Manitoba and the balance from Quebec, New Brunswick, Saskatchewan, Alberta, Yukon and the Northwest Territories.

While the commercial fisheries formed the basis for one of Canada's first industries, this resource may still be considered as under development.





*The salmon resources of British Columbia provide great quantities of high-protein food for Canada and abroad. The normal annual pack is 1,418,000 cases, about half of which is exported.*

Whole new fields of activity in the fisheries have opened up in recent years through discovery of new stocks, technological advances and market changes. The advances made in transportation and processing have made it possible to fish profitably in lakes formerly inaccessible to commercial operations. For example, commercial fishing is being conducted in both summer and winter at Great Slave Lake in the Northwest Territories. Nine million pounds—a quota set by the Federal Department of Fisheries—of whitefish and lake trout are taken from this Lake annually. Albacore tuna, which are found in large numbers off the British Columbia coast, hold great potential value but more has to be learned about their movements and habits before they can be fully exploited. In the Atlantic waters, exploration has led to discovery of valuable stocks of cod, herring and rosefish. Biological and technological research essential to



*Spawning activities at an Ontario Government trout hatchery. Ten of the 31 hatcheries in the Province raise trout to the yearling stage and then release them to public waters.*

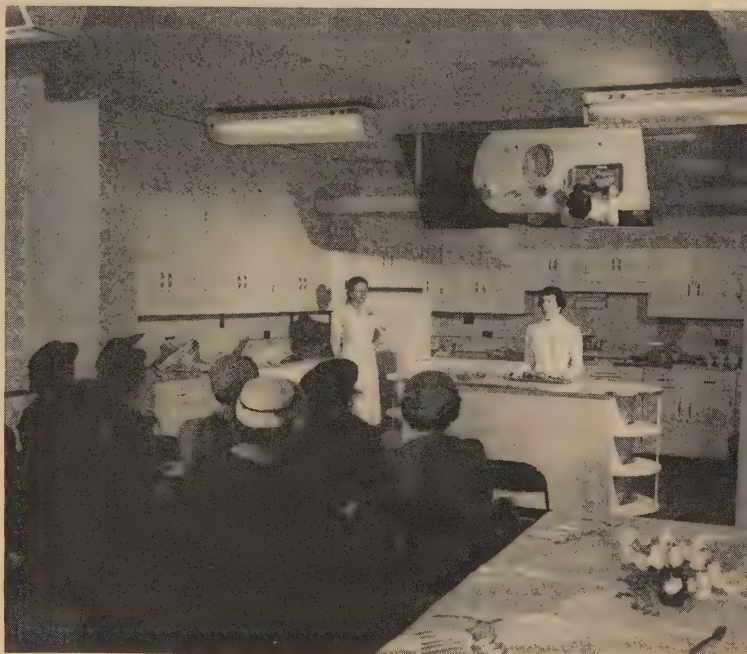


the full development of all Canada's fisheries is continually carried on by the Fisheries Research Board of Canada.

An amazing variety of boats and fishing gear is used to harvest the waters. It is estimated that the commercial fishing fleet now numbers more than 40,000 vessels and boats of all kinds ranging in size from row boats to steam trawlers, and representing an investment in gear and equipment of something like \$60,000,000.

There has been a steady improvement in type and efficiency of fishing craft. Restrictions against otter trawlers were relaxed and more of them are

*demonstrations on fish cookery in the test kitchen of the Federal Department of Fisheries. Such lectures are given by trained home economists throughout the country in an effort to increase the sale of fish on the domestic market.*



now in use. The small trawlers, popularly known as draggers, are increasing in number, particularly in the Caraquet area of New Brunswick, as a result of positive encouragement by the Federal Department of Fisheries. Generally speaking, the number of larger fishing craft (40 tons or more) in Canadian waters has increased by two and one-half times in the past few years and the number of vessels of between 20 and 40 tons has doubled. At the same time there has been a decrease in the number of small boats of the inshore type.

An evolution is taking place in the methods of production and marketing of fish products through the development of quick-freezing and filleting equipment, cold-storage facilities, packaging and canning. Thus retailers across the country are in a position to offer more fish in greater variety and in more attractive form and as a result Canadians, who have not heretofore been great consumers of sea products, are eating more fish. Fresh and frozen sea products now make up 44 p.c. of the total annual market value and 42 p.c. of



*Proper stowing and icing practices aboard otter trawlers bring fish from the Grand Banks off Newfoundland to market in fresh appetizing form.*

the value of Canada's fish exports. The production of salted fish, particularly the heavy salted codfish, has declined with the change of emphasis to fresh and frozen forms. At the same time other factors are working towards increasing the potential of the industry. Under the Federal Department of Fisheries, two fisheries development committees have been formed, one in Newfoundland the other in Prince Edward Island, each charged with the formulation of a development program for the local fisheries. These committees have been asked to examine and consider the better utilization of known fishery resources and the discovery and development of presently unknown resources. They will also study existing fishing and processing methods and others that might be applicable to local conditions.

Certain fisheries, such as the British Columbia salmon and the Atlantic lobster, are intensively sought because of the high consumer demand, and there is a continuing need for conservation measures based on sound biological research. Conservation is a prime responsibility of the Federal Department of Fisheries and a large field staff operates on both coasts to enforce the regulations, to improve conditions for natural propagation of the fish and to apply artificial methods where needed. At the same time Canada and the United States co-operate to guarantee the survival of the salmon and halibut in international Pacific waters. The provincial governments, too, are active in the administration of the commercial and game fisheries within their borders and, usually in co-operation with the Federal Government, give assistance to the industry and carry on educational, research and conservation work.



The premium prices commanded on the world market by British Columbia salmon and Atlantic lobster, halibut and whitefish have helped put Canada in a leading position as an exporter of fish. More than 66 p.c. of Canadian production is marketed outside the country, the United States alone taking 44 p.c. Although Norway exports large quantities of sea products, and Iceland and Denmark are other chief competitors, the dollar value of Canada's exports leads all others.

## Statistics of Fisheries Production

The commercial fisheries of Canada have enjoyed increasing prosperity during the past ten years, to the extent that the value of production has more than trebled since 1939. The level of employment has been generally stable since the start of World War II.

### Trends in Landings, Values of Production and Equipment, and Numbers Employed in the Fishery Industry, 1899-1949

(Exclusive of Newfoundland)

| Year and Average       | Quantity Landed | Values of— |           | Numbers Employed in— |                 |
|------------------------|-----------------|------------|-----------|----------------------|-----------------|
|                        |                 | Production | Equipment | Fishing              | Fish Processing |
|                        | '000 lb.        | \$'000     | \$'000    | No.                  | No.             |
| Average 1899-1908..... | ..              | 24,447     | ..        | 77,282               | 14,070          |
| 1909.....              | ..              | 29,629     | ..        | 68,663               | 21,694          |
| 1914.....              | ..              | 31,265     | ..        | 69,954               | 24,559          |
| Average 1909-18.....   | ..              | 37,976     | ..        | 69,540               | 24,094          |
| 1919.....              | 930,632         | 56,508     | 31,376    | 67,804               | 18,356          |
| 1924.....              | 913,757         | 44,534     | 23,543    | 53,914               | 15,526          |
| Average 1919-28.....   | 953,496         | 47,806     | 27,813    | 59,139               | 16,432          |
| 1929.....              | 1,150,085       | 53,519     | 33,935    | 64,083               | 16,367          |
| 1934.....              | 933,087         | 34,022     | 26,213    | 68,634               | 14,802          |
| Average 1929-38.....   | 995,450         | 37,239     | 27,672    | 67,014               | 14,586          |
| 1939.....              | 1,063,774       | 40,076     | 25,843    | 68,941               | 14,814          |
| 1944.....              | 1,179,146       | 89,440     | 35,057    | 64,208               | 17,272          |
| Average 1939-48.....   | 1,240,570       | 89,625     | 38,911    | 66,130               | 16,661          |
| 1949.....              | 1,317,706       | 130,946    | 69,543    | 64,613               | 16,087          |

Sealing tins of chicken haddie at a canning factory, Souris, P.E.I.





# Quantities Landed and Values of All Products Marketed, of the Chief Commercial Fishes, by Provinces, 1948 and 1949

(Exclusive of Newfoundland)

| Province or Territory    | Kind of Fish       | 1948            |                   | 1949            |                   |
|--------------------------|--------------------|-----------------|-------------------|-----------------|-------------------|
|                          |                    | Quantity Landed | Value of Products | Quantity Landed | Value of Products |
|                          |                    | '000 lb.        | \$'000            | '000 lb.        | \$'000            |
| Prince Edward Island...  | Lobsters.....      | 6,523           | 2,256             | 6,843           | 1,685             |
|                          | Cod.....           | 6,186           | 319               | 6,104           | 283               |
|                          | Smelts.....        | 1,169           | 206               | 993             | 150               |
| Nova Scotia.....         | Cod.....           | 175,662         | 13,777            | 153,427         | 12,203            |
|                          | Lobsters.....      | 18,344          | 6,525             | 19,891          | 6,815             |
|                          | Haddock.....       | 55,635          | 4,380             | 45,404          | 3,680             |
| New Brunswick.....       | Lobsters.....      | 8,386           | 4,667             | 9,399           | 5,018             |
|                          | Sardines.....      | 86,952          | 7,174             | 58,597          | 4,379             |
|                          | Herring.....       | 59,839          | 2,543             | 43,153          | 2,310             |
| Quebec.....              | Cod.....           | 50,693          | 2,937             | 59,045          | 2,475             |
|                          | Lobsters.....      | 2,394           | 509               | 2,073           | 586               |
|                          | Herring.....       | 30,159          | 471               | 31,550          | 460               |
| Ontario.....             | Whitefish.....     | 6,471           | 2,251             | 6,655           | 2,224             |
|                          | Pickarel.....      | 3,127           | 817               | 3,157           | 665               |
|                          | Blue Pickarel..... | 5,868           | 991               | 9,517           | 662               |
| Manitoba.....            | Pickarel.....      | 11,235          | 2,641             | 8,963           | 1,955             |
|                          | Whitefish.....     | 3,357           | 858               | 4,220           | 1,151             |
|                          | Saugers.....       | 4,326           | 650               | 7,467           | 1,012             |
| Saskatchewan.....        | Whitefish.....     | 3,217           | 564               | 3,542           | 559               |
|                          | Trout.....         | 1,089           | 254               | 935             | 203               |
|                          | Pickarel.....      | 1,132           | 229               | 900             | 133               |
| Alberta.....             | Whitefish.....     | 1,760           | 350               | 1,870           | 422               |
|                          | Tullibee.....      | 4,339           | 200               | 3,160           | 133               |
|                          | Pike.....          | 651             | 45                | 594             | 51                |
| British Columbia.....    | Salmon.....        | 145,168         | 36,671            | 147,368         | 35,898            |
|                          | Herring.....       | 416,967         | 10,485            | 344,527         | 9,413             |
|                          | Halibut.....       | 18,753          | 4,648             | 17,997          | 4,356             |
| Northwest Territories... | Whitefish.....     | 4,953           | 930               | 4,573           | 1,405             |
|                          | Trout.....         | 2,270           | 570               | 2,628           | 856               |
| Canada.....              | Salmon.....        | 147,678         | 37,929            | 149,744         | 37,278            |
|                          | Cod.....           | 257,793         | 18,802            | 249,291         | 17,004            |
|                          | Herring.....       | 552,387         | 15,868            | 470,370         | 14,727            |

## Marketed Values of Fish Products, by Provinces, 1949, and Averages 1935-39

(Exclusive of Newfoundland)

| Province or Territory      | Marketed Values of Production |         | Percentages of Total Values |       |
|----------------------------|-------------------------------|---------|-----------------------------|-------|
|                            | Average 1935-39               | 1949    | Average 1935-39             | 1949  |
|                            | \$'000                        | \$'000  | p.c.                        | p.c.  |
| Prince Edward Island.....  | 921                           | 2,705   | 2.4                         | 2.1   |
| Nova Scotia.....           | 8,709                         | 35,040  | 22.6                        | 26.7  |
| New Brunswick.....         | 4,375                         | 17,428  | 11.3                        | 13.3  |
| Quebec.....                | 1,983                         | 5,112   | 5.1                         | 3.9   |
| Ontario.....               | 3,208                         | 5,728   | 8.3                         | 4.4   |
| Manitoba.....              | 1,638                         | 4,800   | 4.2                         | 3.7   |
| Saskatchewan.....          | 419                           | 1,026   | 1.1                         | 0.8   |
| Alberta.....               | 378                           | 653     | 1.0                         | 0.5   |
| British Columbia.....      | 16,986                        | 56,120  | 44.0                        | 42.8  |
| Northwest Territories..... | <sup>1</sup>                  | 2,334   | ...                         | 1.8   |
| Yukon.....                 | 11                            | —       | —                           | ...   |
| Canada.....                | 38,628                        | 130,946 | 100.0                       | 100.0 |

<sup>1</sup> Not collected before 1945.



*Heading for the lobster fishing grounds in Northumberland Strait.*

The marketed value of fisheries production in 1949 amounted to \$130,946,000, a decrease of 6 p.c. from the 1948 figure. This decrease was due mainly to the fact that the quantity of fish landed was 8 p.c. lower than in the previous year. Although the 1949 production was below the record of 1948, it was still well above average.

The value of products of the fish-processing industry increased from \$28,817,000 in 1939 to \$111,919,000 in 1949, the peak year being 1948. Of the 1949 total, salmon canneries accounted for 33 p.c., other canneries 14 p.c., fish-curing establishments 31 p.c., and fresh fish, freezing and reduction plants 22 p.c.

### *Numbers, Employees and Production of Fish-Processing Establishments, 1939-49*

(Exclusive of Newfoundland)

| Year      | Establishments |                     | Employees |                     | Value of Production |                     | Value of Fish Marketed Fresh as P.C. of Total |
|-----------|----------------|---------------------|-----------|---------------------|---------------------|---------------------|-----------------------------------------------|
|           | No.            | P.C. of 1939 Figure | No.       | P.C. of 1939 Figure | \$'000              | P.C. of 1939 Figure |                                               |
| 1939..... | 523            | 100.0               | 14,814    | 100.0               | 28,817              | 100.0               | 28                                            |
| 1941..... | 463            | 88.5                | 15,842    | 106.9               | 48,176              | 167.2               | 24                                            |
| 1943..... | 523            | 100.0               | 15,899    | 107.3               | 64,805              | 224.9               | 33                                            |
| 1945..... | 540            | 103.3               | 17,501    | 118.1               | 93,545              | 324.6               | 41                                            |
| 1947..... | 594            | 113.6               | 18,631    | 125.8               | 105,206             | 365.1               | 33                                            |
| 1948..... | 600            | 114.7               | 16,497    | 111.4               | 115,821             | 401.9               | 35                                            |
| 1949..... | 599            | 114.5               | 16,087    | 108.6               | 111,919             | 388.4               | 36                                            |





# Furs

THE fur trade was Canada's first industry and remained so during the early years of exploration and settlement. The European demand for furs and the resulting competition and rivalries among the traders sent the explorers farther and farther into the wilderness opening up new districts that eventually lured settlers. As civilization advanced, other industries grew and the fur trade inevitably became relatively less and less important until to-day it is a minor item on the Canadian production record. Nevertheless, Canada is still one of the great natural fur preserves of the world. In the vast northern regions trapping is still the means of livelihood for many of the inhabitants—Indian, Eskimo and white man alike. During the 1949-50 season approximately 7,400,000 pelts were taken, 92 p.c. of them from wild animals.

## Numbers and Values of Pelts Taken, Years Ended June 30, 1941-50

(Exclusive of Newfoundland, figures for which are not available)

| Year Ended June 30 | Pelts      |            | P.C. of Value Sold from Fur Farms | Year Ended June 30 | Pelts     |            | P.C. of Value Sold from Fur Farms |
|--------------------|------------|------------|-----------------------------------|--------------------|-----------|------------|-----------------------------------|
|                    | Number     | Value      |                                   |                    | Number    | Value      |                                   |
|                    |            | \$         |                                   |                    |           | \$         |                                   |
| 1941.....          | 7,257,337  | 21,123,161 | 27                                | 1946....           | 7,593,416 | 43,870,541 | 30                                |
| 1942.....          | 19,561,024 | 24,859,869 | 19                                | 1947.....          | 7,486,914 | 26,349,997 | 37                                |
| 1943.....          | 7,418,971  | 28,505,033 | 24                                | 1948....           | 7,952,146 | 32,232,992 | 37                                |
| 1944.....          | 6,324,240  | 33,147,392 | 28                                | 1949....           | 9,902,790 | 22,899,882 | 33                                |
| 1945.....          | 6,994,686  | 31,001,456 | 31                                | 1950....           | 7,377,491 | 23,184,033 | 34                                |

## Numbers and Values of Pelts Taken, by Provinces, Years Ended June 30, 1949 and 1950

(Exclusive of Newfoundland, figures for which are not available)

| Province or Territory   | 1949      |            |                     | 1950      |            |                     |
|-------------------------|-----------|------------|---------------------|-----------|------------|---------------------|
|                         | Pelts     | Value      | P.C. of Total Value | Pelts     | Value      | P.C. of Total Value |
|                         | No.       | \$         |                     | No.       | \$         |                     |
| Prince Edward Island..  | 47,013    | 640,289    | 2.8                 | 25,501    | 258,440    | 1.1                 |
| Nova Scotia.....        | 234,364   | 612,032    | 2.7                 | 88,000    | 309,872    | 1.3                 |
| New Brunswick.....      | 77,232    | 398,982    | 1.7                 | 55,315    | 394,905    | 1.7                 |
| Quebec.....             | 555,245   | 2,388,065  | 10.4                | 528,411   | 2,814,846  | 12.1                |
| Ontario.....            | 1,119,957 | 5,661,318  | 24.8                | 936,313   | 6,199,228  | 26.8                |
| Manitoba.....           | 1,790,848 | 4,036,459  | 17.6                | 1,257,532 | 4,276,630  | 18.5                |
| Saskatchewan.....       | 1,667,008 | 2,248,441  | 9.8                 | 1,050,766 | 2,359,444  | 10.2                |
| Alberta.....            | 2,788,864 | 3,761,727  | 16.5                | 2,191,979 | 3,830,095  | 16.5                |
| British Columbia.....   | 548,154   | 1,473,298  | 6.4                 | 528,700   | 1,631,983  | 7.0                 |
| Yukon.....              | 151,969   | 143,810    | 0.6                 | 153,574   | 199,086    | 0.9                 |
| Northwest Territories.. | 922,136   | 1,535,461  | 6.7                 | 561,400   | 909,504    | 3.9                 |
| Canada.....             | 9,902,790 | 22,899,882 | 100.0               | 7,377,491 | 23,184,033 | 100.0               |



A Federal Government fur supervisor inspects and tags beaver pelts taken by the Indians on a beaver preserve.

Ontario leads the provinces in value of fur production. The numbers of pelts taken in Alberta, Manitoba and Saskatchewan are usually higher than in Ontario, but in those provinces the lower-priced furs such as muskrat, squirrel and ermine (weasel) make up the major portion of the total, while in Ontario the more valuable mink and beaver pelts bring the value to a higher level.

The fur industry has changed very markedly over the decades. The early supremacy of the beaver slowly disappeared and the fox, especially the silver fox, held the position of greatest importance in the fur industry from early in the present century until 1940. In the 1942 season, mink took the lead in total value of pelts taken in Canada and, except for the year 1945, has continued in that position. The fur industry is greatly influenced by the whims of the



A conservation officer talks about the beaver to pupils in a northern Ontario high school. The effectiveness of regulations for the conservation of Canada's fur bearers depends greatly on the interest and cooperation of the public generally.



fashion world and the recent ascendancy of mink, muskrat and beaver is accounted for by the trade's demand for short-haired furs. Standard and mutation mink, which includes pastel, silverblu and other colour phases, accounted for 47 p.c. of the value of pelts taken in 1949-50, muskrat for 23 p.c., beaver for 14 p.c., and fox pelts of all types for only 5 p.c.

Although the number of pelts taken in 1949-50 was lower by 26 p.c. than in 1948-49, mink pelts increased by 40,000 and the price for a standard mink pelt rose from \$13.20 to \$16.68. This increase in number and in price was responsible mainly for the slight increase in the total value of fur production. The average price of muskrat pelts also rose from \$1.49 to \$1.70 and squirrel from 24 to 35 cents. The prices for all types of fox pelts were lower and the number of pelts taken decreased by 83,000. Squirrel pelts decreased by 1,521,000 and muskrat by 985,000.

*Mink farm at St. Charles, Man. Mink is the reigning king of the fur world. In 1949-50 this most valuable producer earned about \$8,436,800 for trappers and ranchers throughout Canada.*



## Fur Farming

Scientific breeding has revolutionized the fur industry. Not only has it stabilized business for the fur farmer, but it has brought new glamorous furs into existence. Blond, pure white and silverblu mink and many colour phases of fox now grace the shoulders of fashionable women.

Fur farming is carried on in all provinces of Canada. Of the 4,049 farms operating in 1949, 1,104 were in Ontario, 718 in Quebec and 657 in Alberta. At Dec. 31, 1949, there were 263,673 standard and mutation mink valued at \$6,469,273 on 2,798 farms and 30,200 foxes of all types valued at \$800,552 on 1,342 farms. All other types of animals raised in captivity, including chinchilla, coyote, fisher, fitch, lynx, marten, nutria, raccoon and skunk, numbered only 6,479.

In 1949, 720,570 pelts valued at \$8,795,550 were sold from fur farms, an increase of over 13 p.c. in number and 10 p.c. in value over 1948 sales. Average



prices for all pelts, except certain types of mink, sold from fur farms were lower than in 1948.

During 1949, the 4,049 fur farms had animals valued at \$8,743,225 and received \$8,795,550 for pelts sold and \$719,684 for sales of live animals.

### ***Fur Processing***

The value of production in the fur goods industry in 1949 at \$60,955,010, showed a sharp decline from the record figure of \$66,384,085 reached in 1948. Ladies' fur coats, valued at \$45,390,172, accounted for almost 75 p.c. of the total value of production. The number made decreased by 8 p.c. and the average value declined from \$222 in 1948 to \$218 in 1949. Thus, both lesser volume and slightly lower prices contributed to the decrease recorded for the year's operation.

Employment was afforded to 6,700 persons, an increase of 4 p.c. over 1948. Salaries and wages increased in greater proportion; the \$14,520,579 paid in 1949 was 8 p.c. higher than in the previous year. The value of materials used, at \$37,260,284, was 15 p.c. below the value recorded for 1948.

There are also in Canada 21 fur-dressing and dyeing establishments which paid out \$3,487,633 in salaries and wages to 1,670 employees in 1949.

### ***Fur Grading and Marketing***

All Canadian furs placed on the market are graded according to government standards, so that purchases may be made by grade without the



*Trapper stretching hides.*

Fur skins, being made up into coats, are carefully cut and matched.



necessity of personal examination by the buyer. Such grading offers many advantages to the producer as well. Knowledge of the proper value of his pelts assists the rancher in raising his standards and improving the quality of his product. Grading is also of value in advancing the level of prices for high-quality pelts.

At the present time the United Kingdom and the United States are Canada's best customers for fur pelts, although Canadian furs have a world-wide distribution. Montreal is the leading fur market in Canada, but auction sales are also held at Vancouver, Edmonton, Regina and Winnipeg.

The Canadian fur trade, both export and import, is chiefly in undressed furs; the value of dressed and manufactured furs going out of Canada or coming in make up a comparatively small portion of the total. A good part of the exports consists, of course, of those furs which Canada produces in greatest abundance, mink being the most valuable followed by beaver, muskrat and fox. On the other hand, such furs as Persian lamb, certain types of muskrat and rabbit, which are not produced to any extent in Canada, make up the major portion of the imports.

Exports and Imports of Raw and Dressed Furs, 1941-50

| Year      | Exports <sup>1</sup> |               |               | Imports        |               |               |
|-----------|----------------------|---------------|---------------|----------------|---------------|---------------|
|           | United Kingdom       | United States | All Countries | United Kingdom | United States | All Countries |
|           | \$                   | \$            | \$            | \$             | \$            | \$            |
| 1941..... | 430,428              | 14,883,751    | 16,159,033    | 1,970,910      | 4,112,345     | 9,120,337     |
| 1942..... | 156,586              | 16,869,153    | 17,976,615    | 945,360        | 3,306,214     | 6,448,861     |
| 1943..... | 66,844               | 25,086,912    | 26,448,522    | 496,578        | 4,923,632     | 8,613,879     |
| 1944..... | 28,321               | 25,748,651    | 27,029,329    | 250,280        | 6,832,775     | 11,434,257    |
| 1945..... | 1,363,727            | 26,755,604    | 29,572,474    | 262,775        | 9,078,294     | 21,205,173    |
| 1946..... | 10,842,086           | 19,679,471    | 32,291,425    | 765,577        | 14,764,115    | 27,291,573    |
| 1947..... | 7,378,628            | 20,342,001    | 29,047,741    | 697,737        | 18,586,408    | 22,451,123    |
| 1948..... | 7,965,968            | 15,615,058    | 24,117,782    | 437,805        | 21,153,883    | 24,567,786    |
| 1949..... | 4,875,557            | 18,078,008    | 23,326,656    | 536,072        | 17,477,223    | 19,576,098    |
| 1950..... | 4,009,635            | 20,807,744    | 25,298,256    | 755,857        | 18,946,672    | 21,998,958    |

<sup>1</sup> Canadian produce only.





*A giant power cable-closer in operation in a Quebec wire and cable plant. This is one of the largest machines of its type in the world, capable of stranding into one cable five to eight conductors and in the same operation 'laying in' the required number of fillers and binding tapes.*



# Manufactures

THE great expansion that has taken place in Canadian manufacturing production during the past decade appears to be only the beginning—new discoveries have opened a curtain upon industrial potentials that challenge the imagination. The World War II expansion in aluminum, chemicals and machine tools laid the foundation for current developments. Entire new industries have been built up to manufacture products previously imported—roller bearings, magnesium, synthetic rubber, optical glass, penicillin and sulphur drugs. In terms of real goods and services, new investment in 1950 was two and one-half times the pre-war rate and in monetary terms was five times as great as in 1939.

Outstanding economic factors of 1950, such as the record gross national product of \$18,029,000,000, the level of capital investment at \$3,791,000,000 and foreign trade at \$6,000,000,000, are the immediate manifestations of trends over the past decade. With a labour force less than 15 p.c. larger than in 1939, the Canadian economy has shown a remarkable growth. Durable goods have expanded the most, especially automobiles, trucks and electrical apparatus. Electric-power output has doubled, and aluminum has advanced five times. Steel is up two and one-half times. Mineral production has doubled. Canada's pulp and paper industry has continued its premier position with Canadian newsprint production leading the world.

Significant progress was made in manufacturing in 1950; a 10 p.c. increase was recorded in gross value of production over 1949. The number of employees in 1950 stood at 1,186,280, a figure within 5 p.c. of the peak full-scale war employment of 1943.

*Statistics of Manufactures, 1870-1950*

| Year                    | Estab-<br>lish-<br>ments | Capital   | Employees | Salaries<br>and<br>Wages | Cost<br>of<br>Materials | Net<br>Value of<br>Products <sup>1</sup> | Gross<br>Value of<br>Products |
|-------------------------|--------------------------|-----------|-----------|--------------------------|-------------------------|------------------------------------------|-------------------------------|
|                         | No.                      | \$'000    | No.       | \$'000                   | \$'000                  | \$'000                                   | \$'000                        |
| 1870 <sup>2</sup> ..... | 41,259                   | 77,964    | 187,942   | 40,851                   | 124,908                 | 96,710                                   | 221,618                       |
| 1880 <sup>2</sup> ..... | 49,722                   | 165,303   | 254,935   | 59,429                   | 179,919                 | 129,757                                  | 309,676                       |
| 1890 <sup>2</sup> ..... | 75,964                   | 353,213   | 369,595   | 100,415                  | 250,759                 | 219,089                                  | 469,848                       |
| 1900 <sup>3</sup> ..... | 14,650                   | 446,916   | 339,173   | 113,249                  | 266,528                 | 214,526                                  | 481,053                       |
| 1910 <sup>3</sup> ..... | 19,218                   | 1,247,584 | 515,203   | 241,008                  | 601,509                 | 564,467                                  | 1,165,976                     |
| 1920 <sup>2</sup> ..... | 22,157                   | 2,914,519 | 591,753   | 711,080                  | 2,083,580               | 1,609,169                                | 3,692,748                     |
| 1929.....               | 22,216                   | 4,004,892 | 666,531   | 777,291                  | 2,029,671               | 1,755,387                                | 3,883,446                     |
| 1933.....               | 23,780                   | 3,279,260 | 468,658   | 436,248                  | 967,789                 | 919,671                                  | 1,954,076                     |
| 1940.....               | 25,513                   | 4,095,717 | 762,244   | 920,873                  | 2,449,722               | 1,942,471                                | 4,529,173                     |
| 1943.....               | 27,652                   | 6,317,167 | 1,241,068 | 1,987,292                | 4,690,493               | 3,816,414                                | 8,732,861                     |
| 1944.....               | 28,483                   | ..        | 1,222,882 | 2,029,621                | 4,832,333               | 4,015,776                                | 9,073,693                     |
| 1945.....               | 29,050                   | ..        | 1,119,372 | 1,845,773                | 4,473,669               | 3,564,316                                | 8,250,369                     |
| 1946.....               | 31,249                   | ..        | 1,058,156 | 1,740,687                | 4,358,234               | 3,467,004                                | 8,035,692                     |
| 1947.....               | 32,734                   | ..        | 1,131,750 | 2,085,926                | 5,534,280               | 4,292,056                                | 10,081,027                    |
| 1948.....               | 33,447                   | ..        | 1,156,006 | 2,409,809                | 6,632,881               | 4,940,369                                | 11,876,790                    |
| 1949.....               | 35,792                   | ..        | 1,171,207 | 2,591,891                | 6,843,231               | 5,330,566                                | 12,479,593                    |
| 1950 <sup>3</sup> ..... | ..                       | ..        | 1,186,280 | 2,762,258                | 7,510,999               | 5,935,634                                | 13,781,220                    |

<sup>1</sup> For and since 1929 the figures for the net value of production represent the gross value less the cost of materials, fuel and electricity. Prior to this only the cost of materials is deducted.

<sup>2</sup> From 1870 to 1890 and from 1920 to 1950 the figures include all establishments irrespective of the number of employees but exclude construction and custom and repair work.

<sup>3</sup> Includes all establishments employing five hands or over.

The discovery of oil at Leduc, Alta., in February 1947 altered Canada's industrial destiny. Output of oil had been dwindling; more than 90 p.c. of the oil used in Canada was being imported and causing a heavy drain on holdings of United States currency. In the three years following the Leduc strike, Canada's oil reserves jumped from 35,000,000 bbl. to 1,500,000,000 bbl. and potential output rose to approximately 145,000 bbl. a day or 40 p.c. of Canadian consumption. Developments in the oil industry of Alberta have been closely paralleled by developments in natural gas. Expansion in this industry, too, has been nothing short of spectacular. In the past five years, household, commercial and industrial sales of natural gas have risen by about 55 p.c. Natural gas is the cheapest source of energy for many purposes and, when available in large quantities and at relatively low price, it plays an important role in manufacturing industry. Another new source of industrial wealth lies in the huge iron deposits on the Quebec-Labrador boundary, 320 miles north of the St. Lawrence River. More than 400,000,000 tons of ore have already been proven and plans call for production by 1955 at an annual rate of 10,000,000 tons. Oil, gas and iron will transform the base of Canadian industry and widen the horizon for manufactured goods. The gross value of manufactured products in Canada reached \$12,400,000,000 in 1949 and was approximately \$13,800,000,000 in 1950. About half of this total was accounted for by 15 leading industries based on the utilization of forest resources, food resources, iron and steel, fuel and power, and also based on the stern dictates of Canadian climate and geography.

### *Principal Statistics of Fifteen Leading Manufacturing Industries, 1949*

| Industry                                                                 | Estab-<br>lish-<br>ments | Employees        | Salaries<br>and<br>Wages | Cost<br>of<br>Materials | Net<br>Value of<br>Products | Gross<br>Value of<br>Products |
|--------------------------------------------------------------------------|--------------------------|------------------|--------------------------|-------------------------|-----------------------------|-------------------------------|
|                                                                          | No.                      | No.              | \$'000                   | \$'000                  | \$'000                      | \$'000                        |
| Pulp and paper.....                                                      | 123                      | 52,050           | 157,704                  | 348,663                 | 423,376                     | 836,148                       |
| Slaughtering and meat<br>packing.....                                    | 157                      | 20,586           | 52,136                   | 586,242                 | 108,059                     | 697,950                       |
| Non-ferrous metal smel-<br>ting and refining....                         | 16                       | 19,150           | 55,133                   | 380,276                 | 181,908                     | 599,188                       |
| Motor-vehicles.....                                                      | 15                       | 27,022           | 76,684                   | 300,705                 | 182,055                     | 485,757                       |
| Petroleum products....                                                   | 47                       | 9,413            | 26,142                   | 336,973                 | 82,971                      | 436,796                       |
| Sawmills.....                                                            | 7,460                    | 55,032           | 97,449                   | 205,935                 | 186,121                     | 396,415                       |
| Butter and cheese.....                                                   | 1,862                    | 22,479           | 41,613                   | 274,299                 | 74,705                      | 355,004                       |
| Primary iron and steel.                                                  | 55                       | 29,097           | 82,958                   | 147,229                 | 136,153                     | 305,735                       |
| Railway rolling-stock..                                                  | 39                       | 32,410           | 82,135                   | 133,054                 | 109,229                     | 246,754                       |
| Flour mills.....                                                         | 133                      | 5,033            | 11,965                   | 215,405                 | 28,343                      | 245,274                       |
| Clothing, men's factory                                                  | 565                      | 33,298           | 57,343                   | 121,485                 | 98,546                      | 220,701                       |
| Cotton yarn and cloth..                                                  | 53                       | 25,178           | 49,364                   | 124,685                 | 83,073                      | 211,385                       |
| Bread and other bakery<br>products.....                                  | 2,730                    | 31,763           | 57,553                   | 102,555                 | 94,717                      | 203,720                       |
| Clothing, women's fac-<br>tory.....                                      | 890                      | 29,129           | 55,424                   | 105,157                 | 96,791                      | 202,413                       |
| Rubber goods including<br>footwear.....                                  | 62                       | 20,729           | 48,172                   | 73,896                  | 101,706                     | 178,504                       |
| <b>Totals, Fifteen Lead-<br/>ing Industries—<br/>1949.....</b>           | <b>14,207</b>            | <b>412,369</b>   | <b>951,775</b>           | <b>3,456,559</b>        | <b>1,987,753</b>            | <b>5,621,744</b>              |
| <b>Grand Totals, All In-<br/>dustries—<br/>1949.....</b>                 | <b>35,792</b>            | <b>1,171,207</b> | <b>2,591,891</b>         | <b>6,843,231</b>        | <b>5,330,566</b>            | <b>12,479,593</b>             |
| <b>1948.....</b>                                                         | <b>33,447</b>            | <b>1,156,006</b> | <b>2,409,810</b>         | <b>6,632,882</b>        | <b>4,940,369</b>            | <b>11,876,790</b>             |
| Percentages of Fifteen<br>Leading Industries to<br>All Industries 1949.. | 39.7                     | 35.2             | 36.7                     | 50.5                    | 37.3                        | 45.0                          |

A roll of cellulose film being removed from storage for further processing.



The establishment and growth of the Canadian pulp and paper industry is not only based on abundant resources of wood and water power but on proximity to the mass United States market which takes 60 p.c. of the world newsprint supply. These are the factors that have helped Canada produce more than one-half of the world's newsprint and one-third of the world's pulp exports, and to become one of the world's leading manufacturers of other grades of paper and paperboard. Pulp and paper is Canada's largest manufacturing industry, standing first in wages paid, first in new investment, first in exports and first in value of output. The fact that this industry produced 35 p.c. of all commercial exports to the United States in 1950 illustrates its importance as a source of American dollars. To-day, North American consumption of newsprint has reached record levels with United States newspapers increasing their circulation by 10 p.c. and their size from an average of 22 pages to 33 pages between 1945 and 1949. At the present time even the high Canadian production will not fill the gap between demand and supply. Canadian consumers are on an annual quota of 350,000 tons and the United States is receiving about 4,750,000 tons.

The year 1950 was outstanding for the lumber industry generally and it developed into a condition of unprecedented boom. During the winter of 1949-50 reports from all markets were so gloomy that many operators were even discouraged from going into the woods. Great Britain announced a cessation in lumber buying from dollar countries and the United States was coming through a mild recession. Upon the outbreak of the Korean War the United States Government imposed restrictions with respect to lumber inventories and also curbed housing credits. The result was a temporary flood of cancellations and a break in price. However, at the critical moment Great Britain again entered the market. Later, following defence preparations, demand was restored and increased in the Canadian and United States markets, and the full effects of the defence program have still to be felt.

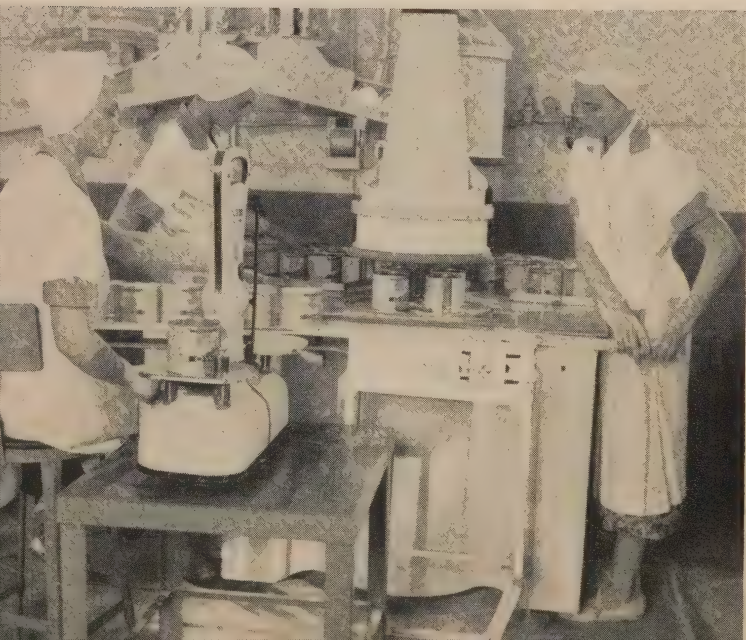
The importance of the food-processing industries may be illustrated by the fact that slaughtering and meat packing is Canada's second largest



industry and accounted for a gross value of production of \$698,000,000 in 1949. Butter and cheese producers and flour and feed mills are also among the leading industries. Canada is traditionally a food exporter. During World War I exports of food products reached significant proportions and during World War II Canada supplied her allies with vast quantities of bacon, canned meats, cheese, dried milk and eggs. Following the War, British contracts involved progressively lower volumes and fewer commodities but compensation was found in rapidly growing North American markets. Despite the virtual completion of post-war relief and emergency feeding programs abroad combined with mounting United States supplies and dwindling exchange reserves of other foreign customers, the food industries have forged ahead. Gains were recorded in 1950 over 1949 in most food products. Live-stock marketings were up 6 p.c. and the domestic market used increased quantities of all dairy products.

The growth of the bread and bakery products industry is linked with the general expansion of the Canadian economy, since such items as bread, cakes and biscuits are produced mainly for home consumption. Increased purchasing power has given impetus to the long-term trend away from home baking and the value of cakes, pies and pastries produced has tripled since 1939. As long as high incomes continue, demand for staple products such as bread and cheaper varieties of biscuits is expected to be maintained or increased. However, some resistance to higher-priced products has been encountered. While the cost of every ingredient has gone up prices have been held down to a considerable extent by extensive modernization programs. Gross value of production in the industry rose from \$203,700,000 in 1949 to approximately \$216,700,000 in 1950.

The non-ferrous metals smelting and refining industry stands third among Canadian manufacturing industries, having a gross value of production of \$599,000,000 in 1949. Among the world's leading producers, Canada stands first in the production of nickel, second in aluminum and zinc, and fourth in copper and lead. Production in the immediate post-war period declined



*Canning and weighing powdered milk. During the past decade the concentrated milk industry has developed into an important phase of the dairy industry.*

*A white-hot steel slab grows longer and thinner as it passes between the rolls of a reversing plate mill.*



from wartime levels due mostly to a return to better conservational practices but, in some cases, to a falling-off in demand. Recently, increased defence and related requirements have brought considerable pressure to bear on the supply of all non-ferrous metals.

Problems of defence have also greatly stimulated the electrical apparatus and supplies industry, the gross value of production having grown from \$486,000,000 in 1949 to approximately \$580,000,000 in 1950. In the latter year, the Canadian industry supplied 82 p.c. of the domestic market and, in the face of continuing international currency and tariff difficulties, maintained a significant export trade in these commodities, much of it with Central and South American countries and the West Indies.

The field of electronics continues to extend its usefulness in providing conveniences for the home. Its most familiar product, radio receivers, had a record-breaking year in 1950 when over 820,772 sets were produced. In limited areas where television reception was possible, about 32,971 TV receivers were in operation. The saturation point for home appliances varies widely; for toasters and irons it is almost 100 p.c., but for home freezers, garbage disposals, electric dish-washers and other new developments, a general demand is just beginning to appear.

The industries making up the iron and steel products groups together accounted for a \$1,419,000,000 gross value of production in 1949 and approximately \$1,500,000,000 in 1950. Primary iron and steel as well as machinery were two groups in this category that were among Canada's leading industries. Primary iron and steel producers have been concentrating on the modernization and improvement of production over the past few years but expansion is now under way. Steel ingot capacity in 1950 was 3,300,000 tons and is expected to reach 3,600,000 in 1951 and 4,000,000 tons by 1953. In addition, many new kinds of structural steel shapes and tubing are being produced for markets formerly dependent on imports.

Great strides have been made by firms producing industrial machinery and output has expanded by more than three times since 1939. Canadian





*Refrigerators on the assembly line. The electrical apparatus and supplies group ranks fourth among Canada's industries in gross value of products, and second in salaries and wages paid.*

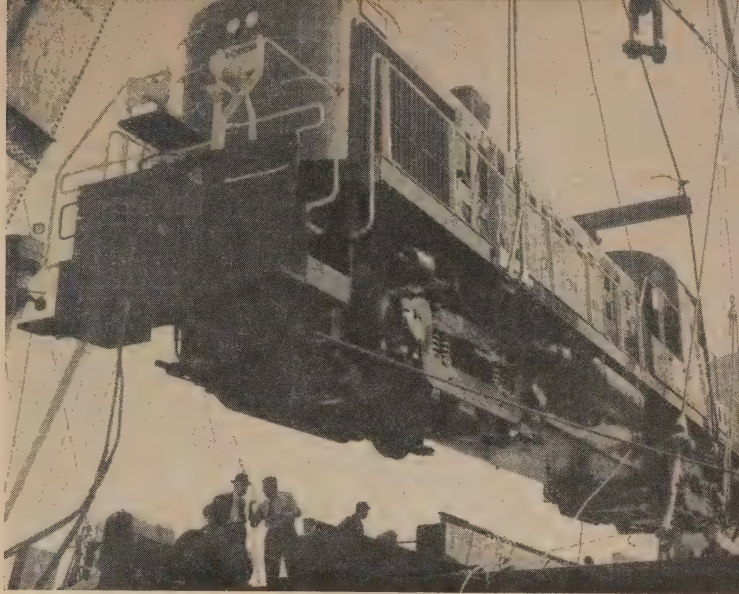
companies have been supplying an increasing proportion of the capital equipment entering investment in this country but over 70 p.c. of the new industrial machinery is still being imported. Because of the rate of expansion of the economy, Canada imported more machinery and equipment in 1949 than any other country in the world. In certain lines the Canadian industry supplies the bulk of the domestic market. The office and store machinery industry produces about 90 p.c. of Canadian requirements. Also, the farm implement and machinery industry has been a great aid in the rapid mechanization of domestic agriculture and a very significant industry in terms of exports. Until 1949, all production could be readily disposed of either at home or abroad, but the industry operated at a slightly lower level in 1950 due to the exhaustion of several international loans, higher Canadian prices to Europe and the Middle East following devaluation and the establishment of new Canadian and United States branch factories abroad.

Transportation equipment includes two leading industrial groups—automobiles and railway rolling-stock. The value of output of the automobile industry increased from \$485,800,000 in 1949 to about \$675,000,000 in 1950. Canadians operate more automobiles and commercial vehicles per person than any other people outside of the United States, and this country ranks as the third largest producer of motor-vehicles, being surpassed only by the United States and Great Britain. Among the nations of the world, Canada ranks first as an importer of automotive equipment and third as an exporter. Its production total of 255,000 passenger cars and 110,000 trucks in 1950 was the highest on record, exceeding the 1949 total by 73,000 units.

Production of railway rolling-stock dropped from \$246,700,000 in 1949 to about \$202,500,000 in 1950. Demand was reduced after 1949 orders were filled and, at the same time, export markets virtually disappeared owing to currency complications. However, in the autumn of 1950 substantial orders for equipment were placed, assuring capacity operation of plants during 1951.



*The first locomotive for the Labrador iron development goes aboard a cargo boat at Sorel, Que. As the Seven Islands-Knob Lake railway progresses, this new diesel, built at Montreal, will freight construction materials and later, with other units, will haul heavy train-loads of iron ore.*



Three textile industries ranked within the fifteen leading industries in 1949—men's factory clothing, cotton yarn and cloth, and women's factory clothing. While the clothing and fur group generally operated at the same level in 1950 as in 1949, primary textiles as a whole were up nearly 16 p.c. The output of firms in the cotton yarn and cloth industry increased from \$211,383,000 in 1949 to more than \$257,000,000 in 1950. The year 1950 was divided into two definite parts by the defence emergency. In the first half the industry was worried over an uncertain domestic market and increased imports but in the last part of the year the major problem was that of obtaining adequate supplies of raw materials. Scarcities were particularly evident in the field of synthetics but wool was also in short supply and cotton far from plentiful. The significance of the textile industry is indicated by the fact that the primary industry produced goods to the value of \$730,288,766 in 1950, an amount exceeding 4 p.c. of Canada's gross national product, and employed 99,047 persons in 856 plants. The post-war expansion program, which involved expenditures of \$300,000,000 on machinery, equipment and construction, is enabling the industry to produce large quantities of war material and, at the same time, to meet nearly all civilian needs.

The rubber industry forms an adjunct of considerable importance to the cotton yarn and cloth and synthetic fibres industries, which supply it with tire and other fabrics. Canada ranks among the leading countries of the world as a manufacturer of rubber goods and these commodities contribute materially to Canada's export trade. The output value of rubber products increased by about 34 p.c. from \$178,500,000 in 1949 to approximately \$239,000,000 in 1950. This increase was due particularly to a great expansion in tires and tubes and also to substantial gains in footwear and miscellaneous rubber goods. Though higher prices for all rubber goods accounted for part of the increase, the physical gain in output was significantly illustrated by the production of an additional 1,000,000 tires in 1950.

The outstanding developments of Canada's leading industries must not be allowed to detract from the solid, steady growth of Canadian manufacturing as a whole which recorded a 10 p.c. gain in the year 1950 over 1949. The output of the food and beverages group of industries advanced from \$2,882,000,000 to more than \$3,000,000,000, a gain of 4.7 p.c.; the iron and steel products group showed an increase of about 5.7 p.c. from \$1,419,000,000 to around \$1,500,000,000; transportation equipment gained 17.8 p.c. from \$1,063,000,000 to about \$1,253,000,000; the wood products group advanced from \$840,000,000 to approximately \$1,000,000,000, a rise of 19 p.c.; and paper products increased by 14.3 p.c. from \$1,093,000,000 to approximately \$1,249,000,000. Large gains were also recorded by the electrical apparatus industry as a whole, petroleum and coal producers, non-metallic metal producers and primary textiles. With the exception of leather products and the clothing industries, all groups moved significantly forward in 1950.

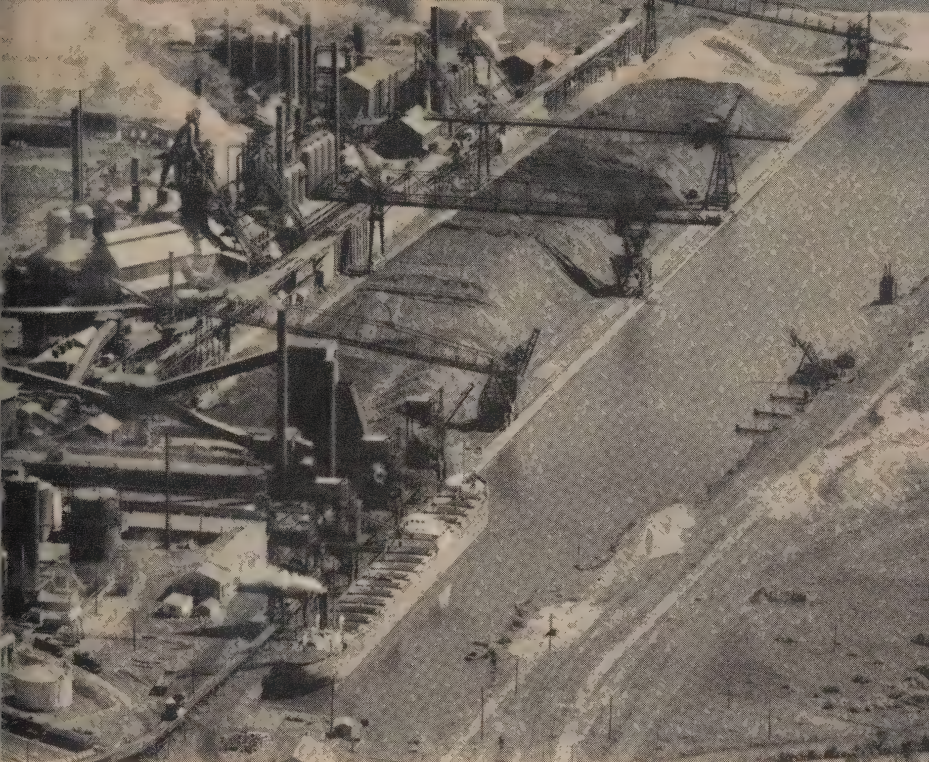
Over the past few years the basis of secondary industry has altered almost beyond recognition. In the years 1946 to 1950, 1,031 entirely new companies began operations in manufacturing. These firms in 1950 employed 41,000 people, paid salaries and wages of \$70,000,000 and had a gross value of production of \$350,000,000. Thus, nearly 4 p.c. of the jobs in manufacturing currently available to Canadians are the direct result of operations of new companies.

### *Statistics of Manufactures, by Standard Classification Groups, 1949*

| Group                                            | Estab-<br>lish-<br>ments | Employees        | Salaries<br>and<br>Wages | Cost<br>of<br>Materials | Net<br>Value of<br>Products | Gross<br>Value of<br>Products |
|--------------------------------------------------|--------------------------|------------------|--------------------------|-------------------------|-----------------------------|-------------------------------|
|                                                  | No.                      | No.              | \$'000                   | \$'000                  | \$'000                      | \$'000                        |
| Food and beverages....                           | 8,558                    | 170,024          | 332,536                  | 2,009,246               | 834,018                     | 2,882,582                     |
| Tobacco and tobacco<br>products.....             | 72                       | 10,686           | 21,896                   | 113,357                 | 58,529                      | 172,420                       |
| Rubber products.....                             | 62                       | 20,729           | 48,172                   | 73,896                  | 101,706                     | 178,504                       |
| Leather products.....                            | 747                      | 34,900           | 59,699                   | 117,869                 | 91,158                      | 210,804                       |
| Textile products (except<br>clothing).....       | 847                      | 77,773           | 156,167                  | 339,645                 | 285,641                     | 636,824                       |
| Clothing.....                                    | 3,058                    | 117,752          | 206,513                  | 371,129                 | 352,741                     | 727,499                       |
| Wood products.....                               | 11,191                   | 121,632          | 224,903                  | 436,638                 | 393,929                     | 840,356                       |
| Paper products.....                              | 524                      | 76,471           | 208,349                  | 494,301                 | 532,289                     | 1,093,060                     |
| Printing, publishing and<br>allied trades.....   | 3,866                    | 61,834           | 141,490                  | 124,684                 | 250,163                     | 377,908                       |
| Iron and steel products.                         | 2,347                    | 163,622          | 413,228                  | 619,499                 | 760,934                     | 1,419,146                     |
| Transportation equip-<br>ment.....               | 596                      | 104,750          | 270,852                  | 584,064                 | 466,529                     | 1,063,211                     |
| Non-ferrous metal pro-<br>ducts.....             | 532                      | 44,698           | 114,591                  | 537,218                 | 289,125                     | 867,043                       |
| Electrical apparatus and<br>supplies.....        | 365                      | 55,916           | 137,279                  | 212,461                 | 269,341                     | 486,286                       |
| Non-metallic mineral<br>products.....            | 1,020                    | 28,139           | 64,594                   | 78,401                  | 143,872                     | 246,458                       |
| Products of petroleum<br>and coal.....           | 77                       | 14,552           | 39,784                   | 391,036                 | 117,819                     | 533,731                       |
| Chemical products.....                           | 1,037                    | 41,328           | 100,691                  | 280,009                 | 288,172                     | 587,398                       |
| Miscellaneous manufac-<br>turing industries..... | 893                      | 26,401           | 51,147                   | 59,778                  | 94,600                      | 156,363                       |
| <b>Totals.....</b>                               | <b>35,792</b>            | <b>1,171,207</b> | <b>2,591,891</b>         | <b>6,843,231</b>        | <b>5,330,566</b>            | <b>12,479,593</b>             |

**Geographical Distribution.**—Despite the great industrial progress made by other Canadian provinces, Ontario in 1949 produced over half of the nation's manufactured goods. Many more industrial areas are being created as new industries and self-contained factory expansions of existing industries are





*The Algoma Steel Plant, Sault Ste. Marie, Ont.*

going to the smaller towns. A vast increase in steel ingot capacity is being made possible by developments at Steep Rock Iron Mines and Ontario will play a role commensurate with its importance on the Great Lakes waterway which links the wide range of natural resources of forests, minerals and water power with one of the most densely populated regions on the continent. At Sarnia, huge investments are going into plant for a whole group of new products based on the oil flowing through the Edmonton-Superior pipe line and being carried across the Great Lakes. Other significant developments are taking place in synthetic rubber and industrial and consumer chemicals. Plans now under way will make the International Nickel Company the largest underground non-ferrous base-metal mining operation in the world. Recent expansions in the electrical industries are not only keyed to defence needs but to the growing population which is expanding in Ontario at the rate of 10,000 a month.\* In addition to the large automotive plants now in Ontario, three United States automobile producers opened new plants in the Province in 1950. Expansion has also taken place in other lines—wood, metal and paper products, textiles, tools, farm implements, building products, food products, leather goods, glass and plastics.

Quebec, producing 30 p.c. of Canada's total value of manufactured goods, has had the largest number of new industrial plants. From Jan. 1, 1949 to June 1, 1950, 684 new plants were opened in the Province and in the past five



years new industries have totalled 4,000. There are logical reasons for this acceleration of economic life. The geographic situation of the Province is extremely favourable with a harbour 800 miles inland where sea-going vessels of heavy tonnage can dock. There is also an extensive highway system linking the small rural communities to the big cities. Other significant factors include forest resources, water power, minerals, agricultural lands and, of even more importance, an industrious and stable population. At the turn of the century, Quebec's rural element represented 60 p.c. of the population whereas to-day the urban element accounts for 63 p.c. Quebec's industries are not as diversified as those of Ontario but a dozen Quebec manufacturing industries have an output that exceeds 50 p.c. of their total Canadian production. These include pulp and paper, tobacco, cigars and cigarettes, cotton yarn and cloth, leather boots and shoes, men's factory clothing, women's factory clothing, railway rolling-stock, silk and artificial silk, medical and pharmaceutical preparations, fur goods and corsets. In the case of pulp and paper it is worth noting that 50 years ago this industry had hardly come into existence in the Province and in the mid-1920's the annual gross value of production had not yet reached \$100,000,000, whereas by the end of 1950 it was \$400,000,000 or 52 p.c. of the total production of pulp and paper in Canada. Two of the most important industrial developments in Quebec to-day are the Ungava iron project and the new titanium industry. Quebec produces 65 p.c. of all cotton goods made in Canada, 60 p.c. of all rayon fabrics and 40 p.c. of woollen and knitted goods.

Forest resources have made British Columbia the third most important manufacturing province of Canada. British Columbia is currently succeeding in providing a solid foundation for its industrial development by pushing factories and plants into more remote sections and drawing greater value in employment and dollars from its natural resources without increasing the strain on those resources at too fast a rate. One of the most impressive fields of expansion is to be found in the pulp and paper industry. British Columbia accounts for approximately half of the total fisheries production of Canada and plays a large part in making Canada the largest fish-exporting nation in the world. This Province has been significantly influenced also by recent developments in the petroleum products and meat-packing industries.

The economic map of the Prairie Provinces has been radically changed by newly found oil and gas. These discoveries helped the grain growers, too, by spreading overhead costs in railway freight rates. In addition, Alberta has a considerable percentage of the world's coal supply and in this Province manufacturing output now exceeds the value of agricultural production. Manitoba's industrial output has risen 140 p.c. in the past decade and approximately 35 p.c. of all employable adults—male and female—are now engaged in manufacturing in 1,520 establishments. In Saskatchewan, while the main economic role continues to be played entirely by agriculture, both oil and metal wealth are being developed. For the Prairie Provinces in general, industrial production has become a "second crop" with all the advantages of integration and the spreading and reduction of economic risk.

The Atlantic Provinces are making important economic strides in such industries as pulp and paper, fish-curing and packing, sawmills and dairy products. In 1950, business improved generally for Nova Scotia despite major

market problems experienced by some of the leading industries. New Brunswick's forest industries were in a buoyant state during the year with the demand for hardwoods and softwoods strong and the United States market exceptionally good. In Prince Edward Island, the canning industry was advancing. This industry is based on both agriculture and fisheries and new species of fish were being processed, new fruits were being canned and new kinds of meat were being tinned in the 52 canneries spread throughout the Island. Newfoundland was making a definite effort to develop its natural wealth and a dozen new enterprises were being established, including a fish cannery, flour mill, birch veneer mill, fur-processing plant, paper mill, feed mill, oil-hardening plant and a leather tannery.

### Statistics of Manufactures, by Provinces, 1949

| Province or Territory                   | Estab-<br>lish-<br>ments | Employees        | Salaries<br>and<br>Wages | Cost<br>of<br>Materials | Net<br>Value of<br>Products | Gross<br>Value of<br>Products |
|-----------------------------------------|--------------------------|------------------|--------------------------|-------------------------|-----------------------------|-------------------------------|
|                                         | No.                      | No.              | \$'000                   | \$'000                  | \$'000                      | \$'000                        |
| Newfoundland.....                       | 793                      | 6,934            | 15,486                   | 31,228                  | 32,919                      | 67,264                        |
| Prince Edward Island..                  | 251                      | 1,747            | 2,134                    | 13,537                  | 4,338                       | 18,123                        |
| Nova Scotia.....                        | 1,480                    | 29,311           | 54,687                   | 135,842                 | 102,294                     | 247,592                       |
| New Brunswick.....                      | 1,060                    | 23,446           | 44,220                   | 131,804                 | 91,187                      | 231,506                       |
| Quebec.....                             | 11,579                   | 390,275          | 809,579                  | 2,027,794               | 1,651,630                   | 3,788,497                     |
| Ontario.....                            | 12,951                   | 557,190          | 1,305,544                | 3,256,456               | 2,708,555                   | 6,103,805                     |
| Manitoba.....                           | 1,520                    | 41,956           | 86,088                   | 299,101                 | 167,335                     | 474,682                       |
| Saskatchewan.....                       | 962                      | 10,841           | 22,274                   | 164,349                 | 47,357                      | 215,743                       |
| Alberta.....                            | 1,685                    | 26,425           | 55,116                   | 251,364                 | 114,681                     | 371,995                       |
| British Columbia.....                   | 3,493                    | 82,934           | 196,404                  | 531,112                 | 409,665                     | 959,008                       |
| Yukon and Northwest<br>Territories..... | 18                       | 148              | 359                      | 644                     | 605                         | 1,377                         |
| <b>Canada.....</b>                      | <b>35,792</b>            | <b>1,171,207</b> | <b>2,591,891</b>         | <b>6,843,231</b>        | <b>5,330,566</b>            | <b>12,479,593</b>             |

**Manufacturing Industries in Urban Centres.**—The prosperity of most of the cities and towns of Canada is intimately connected with their manufacturing industries, which provide employment for a large proportion of their gainfully occupied population.

Spark plugs, produced largely by automatic machines tended by skilled operators, are packaged by hand for shipment to all parts of the world.



The extent to which the manufacturing industries of Canada are concentrated in urban centres is indicated by the fact that, in 1949, 94 p.c. of the gross manufacturing production of Ontario was contributed by cities and towns having a gross production of over \$1,000,000 each. In Quebec the percentage was 93 while in the Atlantic Provinces and British Columbia, where sawmilling, fish-packing and dairying are leading industries, the proportions were 69 and 59 p.c., respectively. In the Prairie Provinces manufacturing is confined largely to a few urban centres.

**Urban Centres with Gross Manufacturing Production of Over  
\$50,000,000 in 1949**

| Urban Centre              | Estab-<br>lish-<br>ments | Employees | Salaries<br>and<br>Wages | Cost of<br>Fuel and<br>Electricity | Cost<br>of<br>Materials | Gross<br>Value of<br>Products |
|---------------------------|--------------------------|-----------|--------------------------|------------------------------------|-------------------------|-------------------------------|
|                           | No.                      | No.       | \$'000                   | \$'000                             | \$'000                  | \$'000                        |
| Montreal, Que. ....       | 4,136                    | 184,779   | 399,943                  | 16,487                             | 847,444                 | 1,596,713                     |
| Toronto, Ont.* ....       | 4,005                    | 158,562   | 368,510                  | 17,003                             | 837,148                 | 1,579,186                     |
| Hamilton, Ont. ....       | 548                      | 54,799    | 137,871                  | 17,768                             | 288,180                 | 566,982                       |
| Windsor, Ont. ....        | 282                      | 34,523    | 94,174                   | 5,353                              | 269,392                 | 492,162                       |
| Vancouver, B.C. ....      | 1,225                    | 33,536    | 78,793                   | 4,392                              | 204,642                 | 358,620                       |
| Winnipeg, Man. ....       | 860                      | 28,687    | 58,604                   | 3,166                              | 143,827                 | 255,006                       |
| Montreal East, Que. ....  | 23                       | 4,617     | 11,650                   | 9,625                              | 195,826                 | 247,604                       |
| Oshawa, Ont. ....         | 55                       | 9,997     | 26,711                   | 1,227                              | 85,293                  | 157,756                       |
| Sarnia, Ont. ....         | 46                       | 7,153     | 18,874                   | 9,332                              | 90,804                  | 145,303                       |
| Kitchener, Ont. ....      | 197                      | 14,821    | 31,922                   | 1,531                              | 75,502                  | 141,680                       |
| London, Ont. ....         | 270                      | 15,153    | 32,878                   | 1,674                              | 62,394                  | 139,254                       |
| Brantford, Ont. ....      | 153                      | 13,650    | 31,822                   | 1,673                              | 66,909                  | 129,421                       |
| Quebec, Que. ....         | 427                      | 15,130    | 26,412                   | 3,350                              | 67,141                  | 121,416                       |
| Calgary, Alta. ....       | 276                      | 7,848     | 17,763                   | 1,531                              | 84,202                  | 117,310                       |
| Edmonton, Alta. ....      | 287                      | 8,544     | 18,958                   | 864                                | 80,588                  | 117,123                       |
| St. Boniface, Man. ....   | 86                       | 4,225     | 10,230                   | 839                                | 91,461                  | 114,975                       |
| Peterborough, Ont. ....   | 99                       | 9,591     | 23,586                   | 1,099                              | 61,596                  | 100,033                       |
| New Toronto, Ont. ....    | 39                       | 6,407     | 17,390                   | 1,529                              | 55,453                  | 99,605                        |
| Sault Ste. Marie, Ont. .. | 54                       | 6,941     | 19,835                   | 5,876                              | 51,345                  | 95,209                        |
| Welland, Ont. ....        | 63                       | 8,061     | 22,331                   | 3,628                              | 43,425                  | 91,869                        |
| St. Catharines, Ont. .... | 104                      | 9,899     | 25,216                   | 1,218                              | 39,765                  | 85,699                        |
| Three Rivers, Que. ....   | 85                       | 6,969     | 16,283                   | 5,785                              | 36,088                  | 84,353                        |
| Leaside, Ont. ....        | 51                       | 7,873     | 19,334                   | 956                                | 40,701                  | 83,732                        |
| Ottawa, Ont. ....         | 268                      | 10,641    | 22,705                   | 1,690                              | 38,027                  | 82,450                        |
| Shawinigan Falls, Que. .. | 46                       | 4,853     | 12,918                   | 6,277                              | 33,066                  | 73,040                        |
| Niagara Falls, Ont. ....  | 76                       | 6,163     | 15,648                   | 4,567                              | 27,388                  | 71,047                        |
| LaSalle, Que. ....        | 36                       | 3,501     | 8,284                    | 4,041                              | 34,486                  | 66,628                        |
| New Westminster, B.C. ..  | 111                      | 5,324     | 12,687                   | 763                                | 39,326                  | 66,460                        |
| Sherbrooke, Que. ....     | 103                      | 7,976     | 15,224                   | 1,069                              | 30,765                  | 65,017                        |
| Chatham, Ont. ....        | 71                       | 3,572     | 8,481                    | 917                                | 42,355                  | 62,387                        |
| Lachine, Que. ....        | 54                       | 7,105     | 17,961                   | 936                                | 22,007                  | 58,636                        |
| Drummondville, Que. ....  | 44                       | 8,272     | 16,599                   | 1,630                              | 17,473                  | 56,100                        |
| Saint John, N.B. ....     | 108                      | 3,475     | 6,629                    | 1,011                              | 39,105                  | 55,367                        |
| Sydney, N.S. ....         | 39                       | 5,996     | 15,607                   | 3,581                              | 26,403                  | 53,409                        |
| Cornwall, Ont. ....       | 50                       | 6,502     | 15,065                   | 2,823                              | 21,118                  | 52,612                        |
| Saskatoon, Sask. ....     | 109                      | 2,524     | 5,370                    | 615                                | 39,359                  | 51,882                        |
| Regina, Sask. ....        | 137                      | 2,960     | 6,655                    | 1,395                              | 34,922                  | 50,334                        |

## Employment in Manufactures

In its monthly surveys of employment and earnings the Dominion Bureau of Statistics receives the co-operation of a large number of firms employing, in the main, 15 or more persons. Since the unit of operation in manufacturing establishments tends to be large, approximately 88 p.c. of the total number of employees is covered by the surveys.



In the period since Jan. 1, 1945, the index of employment in general manufacturing touched its lowest point (154.9) on Jan. 1, 1946, customarily a seasonally low month, and ascended to its peak on Oct. 1, 1951. The preliminary average in 1951 was 190.0, against 177.5 in 1950. The most recent advances were caused by the accumulation of inventories to meet the demand for hard and soft consumer goods, and by the impact of defence spending.

Employment in manufacturing industries rose steadily through 1951 until Oct. 1, after which it fell off seasonally; from 182.4 at Jan. 1, the index rose to 194.2 at Oct. 1, an increase of 6.5 p.c., before declining to 189.2, the preliminary figure for Dec. 1. In 1951, the percentage rise in employment in the manufacture of durable goods was more than three times the increase in the manufacture of non-durable goods, while the index of payrolls rose 24.3 p.c. in the former and 13.1 p.c. in the latter. Average weekly wages and salaries increased slightly more in durable goods than in non-durable goods.

The average of the hours worked in 1951 were fractionally lower than in 1950, but average hourly earnings showed a 12.7 p.c. increase from 103.6 cents to 116.8 cents. The higher hourly earnings more than offset the small decline in hours worked, and the average weekly wages of hourly paid employees were up by 11.4 p.c.

### Monthly Indexes of Employment in Manufacturing, 1945-51 (1939=100)

| Month        | 1945  | 1946  | 1947  | 1948  | 1949  | 1950  | 1951  |
|--------------|-------|-------|-------|-------|-------|-------|-------|
| Jan. 1.....  | 184.2 | 154.9 | 163.6 | 172.0 | 174.0 | 171.0 | 182.4 |
| Feb. 1.....  | 186.2 | 157.4 | 166.7 | 172.6 | 173.8 | 170.4 | 184.5 |
| Mar. 1.....  | 185.5 | 157.2 | 167.1 | 174.1 | 174.2 | 171.5 | 186.3 |
| Apr. 1.....  | 184.3 | 159.2 | 167.7 | 173.5 | 174.2 | 172.0 | 188.8 |
| May 1.....   | 182.3 | 160.3 | 168.2 | 173.2 | 174.4 | 172.5 | 189.9 |
| June 1.....  | 180.7 | 158.7 | 169.7 | 174.6 | 175.8 | 175.3 | 192.0 |
| July 1.....  | 178.9 | 160.8 | 172.2 | 177.9 | 177.7 | 178.6 | 193.9 |
| Aug. 1.....  | 176.3 | 157.9 | 173.8 | 177.1 | 176.7 | 179.6 | 194.0 |
| Sept. 1..... | 171.3 | 160.5 | 174.8 | 179.7 | 179.1 | 182.5 | 194.1 |
| Oct. 1.....  | 162.5 | 161.7 | 175.0 | 180.3 | 178.7 | 185.6 | 194.2 |
| Nov. 1.....  | 160.6 | 164.8 | 176.5 | 178.9 | 177.0 | 185.4 | 190.8 |
| Dec. 1.....  | 158.5 | 167.0 | 176.5 | 178.5 | 175.2 | 185.3 | 189.2 |

### Average Hours and Earnings in Manufacturing, by Months, 1950 and 1951

| Month         | Average Hours Worked |      | Average Hourly Earnings |       | Average Weekly Wages |       |
|---------------|----------------------|------|-------------------------|-------|----------------------|-------|
|               | 1950                 | 1951 | 1950                    | 1951  | 1950                 | 1951  |
|               | No.                  | No.  | cts.                    | cts.  | \$                   | \$    |
| Jan. 1.....   | 39.9                 | 40.1 | 101.1                   | 109.0 | 40.34                | 43.71 |
| Feb. 1.....   | 42.3                 | 42.9 | 100.9                   | 110.4 | 42.68                | 47.36 |
| Mar. 1.....   | 42.5                 | 42.3 | 101.4                   | 111.4 | 43.10                | 47.12 |
| Apr. 1.....   | 42.8                 | 42.2 | 101.7                   | 112.8 | 43.53                | 47.60 |
| May 1.....    | 42.6                 | 42.5 | 102.5                   | 114.1 | 43.67                | 48.48 |
| June 1.....   | 42.0                 | 41.9 | 103.5                   | 115.9 | 43.47                | 48.56 |
| July 1.....   | 42.5                 | 41.7 | 103.9                   | 118.4 | 44.16                | 49.37 |
| Aug. 1.....   | 42.5                 | 41.4 | 104.2                   | 119.1 | 44.29                | 49.31 |
| Sept. 1.....  | 41.9                 | 41.5 | 104.4                   | 120.6 | 43.74                | 50.05 |
| Oct. 1.....   | 42.9                 | 41.9 | 105.3                   | 121.9 | 45.17                | 51.08 |
| Nov. 1.....   | 43.0                 | 41.8 | 106.4                   | 123.5 | 45.75                | 51.62 |
| Dec. 1.....   | 43.1                 | 41.9 | 107.8                   | 124.5 | 46.46                | 52.17 |
| Averages..... | 42.3                 | 41.8 | 103.6                   | 116.8 | 43.86                | 48.87 |



*The 358-mile railway, now being built from Seven Islands through the rugged interior of Ungava to the Quebec-Labrador iron deposits, is regarded as the biggest railway construction job since the conquering of the Rockies. The cost of the railway itself is estimated at \$115,000,000, and the dock facilities, townsite at Burnt Creek, power plant and mining facilities another \$85,000,000.*

# Construction

WORK performed by the construction industry during 1950, which amounted to \$2,727,968,000, shattered all previous records. The increase over the 1949 total of \$2,220,775,000 was 23 p.c. In comparing these figures with those for earlier years it should be noted that work performed by railway and telephone companies with their own labour forces, not previously reported, was included in 1949 and 1950.

The category of construction most interesting to the general public is housing, and the building of homes and apartments was again the largest single activity in Canadian construction in 1950. The value of residential building, at \$508,525,000, represented 19 p.c. of the total value of construction and was 43 p.c. above the value of such building in 1949. It should be pointed out that the bulk of the work classified under "Trade and Jobbing Construction", which amounted to \$415,516,000, is also building construction, though it is not possible to classify such work as to type. Despite high building costs, the emphasis was on individual houses built for sale, with the market for moderately-priced homes far from being satisfied.

The high level of industrial activity in Canada is indicated by the investment of \$274,849,000 in new plants in 1950 compared with \$215,664,000 in 1949. Commercial and institutional building also increased by 6 p.c. and 18 p.c., respectively.

*Value of Construction, by Types, 1939, 1949 and 1950*

| Type                                              | 1939 <sup>1</sup> | 1949             | 1950             | P.C.<br>Change<br>1949-50 |
|---------------------------------------------------|-------------------|------------------|------------------|---------------------------|
|                                                   | \$'000            | \$'000           | \$'000           |                           |
| <b>Building—</b>                                  |                   |                  |                  |                           |
| Residential.....                                  | 53,542            | 356,562          | 508,525          | 42.6                      |
| Industrial.....                                   | 38,103            | 215,664          | 274,849          | 27.4                      |
| Commercial.....                                   | 30,736            | 199,266          | 211,763          | 6.3                       |
| Institutional.....                                | 20,147            | 174,462          | 206,219          | 18.2                      |
| Other.....                                        | 16,512            | 23,273           | 16,335           | -29.8                     |
| <b>Totals, Building Construction.....</b>         | <b>159,041</b>    | <b>969,227</b>   | <b>1,217,691</b> | <b>25.6</b>               |
| <b>Engineering—</b>                               |                   |                  |                  |                           |
| Road, highway and bridge.....                     | 94,507            | 246,908          | 314,050          | 27.2                      |
| Water sewage and drainage systems.....            | 13,815            | 89,458           | 87,246           | -2.5                      |
| Electric power.....                               | 24,719            | 251,611          | 279,641          | 11.1                      |
| Railway, telegraph and telephone.....             | 203               | 170,703          | 264,014          | 54.7                      |
| Other.....                                        | 18,497            | 138,938          | 101,284          | -27.1                     |
| <b>Totals, Engineering Construction...</b>        | <b>151,742</b>    | <b>897,615</b>   | <b>1,046,235</b> | <b>16.6</b>               |
| Marine construction.....                          | 16,561            | 52,833           | 48,526           | -8.2                      |
| Trade and jobbing construction <sup>2</sup> ..... | 45,860            | 301,100          | 415,516          | 38.0                      |
| <b>Totals, All Construction.....</b>              | <b>373,204</b>    | <b>2,220,775</b> | <b>2,727,968</b> | <b>22.8</b>               |

<sup>1</sup> Excluding Newfoundland, as to type.

<sup>2</sup> Construction by independent tradesmen; not classified





*British Columbia's largest development—the aluminum project in the northern part of the Province—gets underway as 3,000 men in construction crews speed the work on dam, tunnel, power house, roads, docks and townsite. First aluminum production is expected in 1954. The power development necessary for this project is illustrated on pp. 184-185.*

Engineering construction increased by 17 p.c. as large new developments of Canadian natural resources were begun. The largest amount was spent on roads, highways and bridges, indicating a start on the tremendous backlog of work that has developed in this category. Several of the provinces have launched ambitious long-term programs of highway construction.

▮ A regional comparison shows that 41 p.c. of the value of work performed in 1950 was in Ontario where a gain of 22 p.c. was shown over 1949. Quebec was in second place with 22 p.c. of the national total and an advance of 10 p.c. over 1949. The rapid advance of employment in construction since 1944 continued in 1950—in those years the number employed tripled and their average annual income advanced from \$1,596 to \$2,397.

## Principal Statistics of the Construction Industry, 1949 and 1950

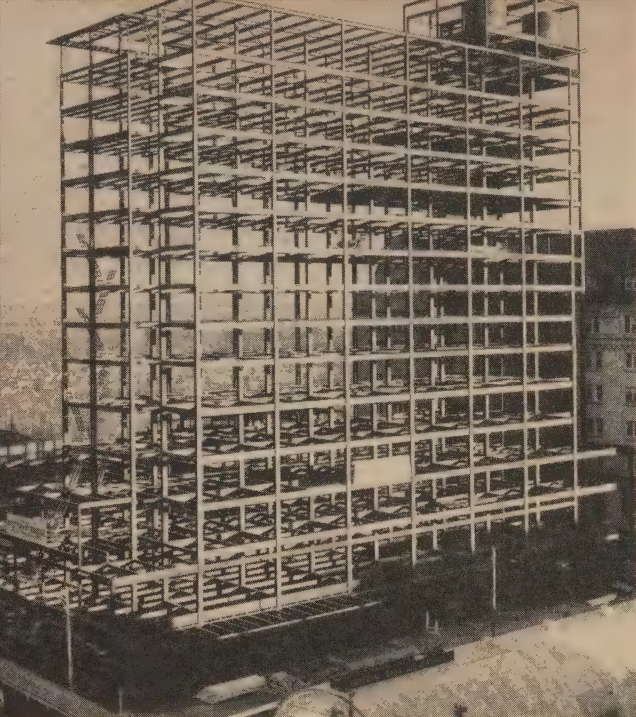
| Classification and Year                                | Salaried Employees and Wage-earners | Salaries and Wages Paid | Cost of Materials Used | VALUE OF WORK PERFORMED |                                      |               |
|--------------------------------------------------------|-------------------------------------|-------------------------|------------------------|-------------------------|--------------------------------------|---------------|
|                                                        |                                     |                         |                        | New Construction        | Alterations, Maintenance and Repairs | Total Value   |
|                                                        | No.                                 | \$                      | \$                     | \$                      | \$                                   | \$            |
| Contractors and builders—                              |                                     |                         |                        |                         |                                      |               |
| 1949.....                                              | 210,568                             | 489,099,798             | 669,009,159            | 1,200,353,027           | 147,840,162                          | 1,348,193,189 |
| 1950.....                                              | 213,078                             | 523,255,178             | 808,685,271            | 1,419,721,174           | 199,635,484                          | 1,619,356,658 |
| Owner builders—                                        |                                     |                         |                        |                         |                                      |               |
| 1949 <sup>1</sup> .....                                | 9,258                               | 16,184,488              | 31,621,468             | 49,837,132              | 1,150                                | 49,838,282    |
| 1950.....                                              | 15,180                              | 35,040,818              | 73,075,452             | 111,263,354             | 528,911                              | 111,792,265   |
| Industrial organizations—                              |                                     |                         |                        |                         |                                      |               |
| 1949.....                                              | 15,130                              | 31,294,318              | 63,681,928             | 72,786,199              | 32,118,801                           | 104,905,000   |
| 1950.....                                              | 12,782                              | 39,495,562              | 117,277,724            | 134,158,133             | 33,946,763                           | 168,104,896   |
| Steam and electric railways—                           |                                     |                         |                        |                         |                                      |               |
| 1949.....                                              | 46,293                              | 99,350,302              | 92,611,461             | 35,183,373              | 158,966,823                          | 194,150,196   |
| 1950.....                                              | 46,365                              | 100,223,345             | 99,884,338             | 39,420,651              | 162,040,128                          | 201,460,779   |
| Hydro-electric power and public utilities commissions— |                                     |                         |                        |                         |                                      |               |
| 1949.....                                              | 25,218                              | 57,665,824              | 152,837,743            | 212,081,702             | 18,640,045                           | 230,721,747   |
| 1950.....                                              | 29,558                              | 71,701,163              | 161,082,671            | 238,570,963             | 22,629,778                           | 261,200,741   |
| Telephone companies—                                   |                                     |                         |                        |                         |                                      |               |
| 1949.....                                              | 13,221                              | 37,133,653              | 51,346,305             | 72,690,991              | 33,302,861                           | 105,993,852   |
| 1950.....                                              | 13,909                              | 41,276,627              | 50,213,366             | 71,537,381              | 36,809,901                           | 108,347,282   |
| Federal Government departments—                        |                                     |                         |                        |                         |                                      |               |
| 1949.....                                              | 12,102                              | 26,839,296              | 23,835,510             | 30,298,078              | 22,273,072                           | 52,571,150    |
| 1950.....                                              | 14,081                              | 32,393,769              | 29,585,761             | 43,491,067              | 22,135,791                           | 65,626,858    |
| Provincial Government departments—                     |                                     |                         |                        |                         |                                      |               |
| 1949.....                                              | 14,474                              | 26,394,313              | 33,519,323             | 33,980,901              | 28,358,257                           | 62,339,158    |
| 1950.....                                              | 22,990                              | 43,921,144              | 64,124,750             | 65,591,969              | 51,273,935                           | 116,865,904   |
| Municipalities—                                        |                                     |                         |                        |                         |                                      |               |
| 1949.....                                              | 16,564                              | 32,646,875              | 35,663,499             | 44,438,378              | 27,624,097                           | 72,062,475    |
| 1950.....                                              | 15,606                              | 32,239,719              | 39,973,864             | 46,414,295              | 28,798,032                           | 75,212,327    |
| Totals—                                                |                                     |                         |                        |                         |                                      |               |
| 1949.....                                              | 362,828                             | 816,608,867             | 1,154,126,396          | 1,751,649,781           | 469,125,268                          | 2,220,775,049 |
| 1950.....                                              | 383,549                             | 919,547,325             | 1,443,903,197          | 2,170,168,987           | 557,798,723                          | 2,727,967,710 |

<sup>1</sup> Owner-builders in the "Under \$50,000" category were canvassed on a 10 p.c. basis by number.

work on the  
Toronto subway  
continues with  
little interruption  
to traffic. The  
cut-and-cover  
method of con-  
struction is mainly  
used, open exca-  
vation being car-  
ried down only  
deep enough to  
allow work to con-  
tinue under a  
temporary street  
decking of heavy  
timbers.







Sixteen-story hotel extension at Edmonton, Alta., scheduled for completion in 1952. Commercial construction, along with other types of building, is presently at an all-time peak.

*Value of Construction, by Provinces, 1939 and 1945-50*

| Province                            | 1939           | 1945           | 1946           | 1947             | 1948             | 1949             | 1950             |
|-------------------------------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
|                                     | \$'000         | \$'000         | \$'000         | \$'000           | \$'000           | \$'000           | \$'000           |
| Newfoundland.....                   | ...            | ...            | ...            | ...              | ...              | 15,243           | 17,192           |
| Prince Edward Island..              | 1,948          | 1,877          | 2,382          | 3,071            | 5,424            | 7,424            | 9,590            |
| Nova Scotia.....                    | 19,890         | 29,325         | 40,858         | 52,897           | 73,507           | 92,657           | 94,780           |
| New Brunswick.....                  | 14,886         | 14,373         | 27,761         | 42,675           | 51,590           | 70,108           | 72,378           |
| Quebec.....                         | 118,530        | 150,166        | 225,582        | 338,515          | 421,476          | 553,233          | 605,861          |
| Ontario.....                        | 144,829        | 216,545        | 347,617        | 501,651          | 682,466          | 907,434          | 1,105,503        |
| Manitoba.....                       | 14,849         | 28,383         | 43,463         | 61,254           | 82,230           | 117,515          | 154,731          |
| Saskatchewan.....                   | 13,429         | 17,482         | 29,277         | 40,009           | 49,380           | 73,960           | 119,378          |
| Alberta.....                        | 17,857         | 32,014         | 51,573         | 67,651           | 109,448          | 150,592          | 255,558          |
| British Columbia <sup>1</sup> ..... | 26,986         | 53,414         | 100,148        | 148,813          | 190,040          | 232,610          | 292,997          |
| <b>Canada.....</b>                  | <b>373,204</b> | <b>543,580</b> | <b>868,661</b> | <b>1,256,536</b> | <b>1,665,561</b> | <b>2,220,775</b> | <b>2,727,968</b> |

<sup>1</sup> Includes Yukon and the Northwest Territories.

## Residential Construction

In the post-war period from the beginning of 1945 to November 1951 over 500,000 dwelling units (including about 30,000 conversions) were constructed in Canada. Of these units about 70 p.c. were completed in cities and towns of 5,000 population or over, reflecting in part the growing urbanization and industrialization of Canada's economy. Farm units consisted of about 5 p.c. of completions over the period. Rental units in the form of



multiple units, and veterans' rental and armed service married quarters comprised about 30 p.c. of total completions.

In 1951, for the first time in the post-war period, house building in Canada experienced a decline in both the number of units started and the number completed. This contraction is, for the most part, the result of a shift in emphasis from house building to defence, defence-supporting industrial construction and resource development in connection with hydro and railway utilities.

During the first nine months of 1951 starts of new permanent dwellings numbered 57,600 units and completions numbered 57,800 units. This compares with starts of 71,900 units and completions of 59,400 units in the same period in 1950.

### *Dwelling Units Built, by Types, 1947-51*

| Type                        | 1947          | 1948          | 1949          | 1950 <sup>1</sup> | 1951 <sup>1,2</sup> |
|-----------------------------|---------------|---------------|---------------|-------------------|---------------------|
|                             | No.           | No.           | No.           | No.               | No.                 |
| New Construction—           |               |               |               |                   |                     |
| One-family detached.....    | 58,883        | 61,787        | 68,422        | 68,685            | 42,653              |
| Two-family detached.....    | 5,314         | 4,560         | 7,250         | 7,376             | 5,988               |
| Row or terrace.....         | 608           | 1,607         | 480           | 145               | 495                 |
| Apartment or flat.....      | 7,460         | 7,836         | 10,962        | 12,540            | 8,426               |
| Other.....                  | 81            | 307           | 419           | 269               | 243                 |
| Totals, New Construction... | 72,346        | 76,097        | 87,533        | 89,015            | 57,805              |
| Conversions.....            | 7,013         | 5,146         | 3,422         | 2,739             | ..                  |
| <b>Grand Totals.....</b>    | <b>79,359</b> | <b>81,243</b> | <b>90,955</b> | <b>91,754</b>     | <b>..</b>           |

<sup>1</sup> Includes Newfoundland.

<sup>2</sup> January to September, inclusive.

### *Dwelling Units Built in Metropolitan Areas of 40,000 Population or Over, 1947-51*

(Exclusive of conversions)

| Metropolitan Area  | 1947          | 1948          | 1949          | 1950 <sup>1</sup> | 1951 <sup>1,2</sup> |
|--------------------|---------------|---------------|---------------|-------------------|---------------------|
|                    | No.           | No.           | No.           | No.               | No.                 |
| Calgary.....       | 1,306         | 1,375         | 1,986         | 1,976             | 1,526               |
| Edmonton.....      | 1,291         | 1,784         | 2,361         | 2,776             | 1,727               |
| Halifax.....       | 371           | 471           | 780           | 708               | 465                 |
| Hamilton.....      | 1,141         | 1,317         | 1,909         | 1,511             | 1,387               |
| London.....        | 799           | 732           | 1,204         | 1,325             | 951                 |
| Montreal.....      | 6,183         | 8,814         | 14,394        | 15,826            | 12,083              |
| Ottawa.....        | 1,194         | 1,454         | 975           | 1,938             | 1,716               |
| Quebec.....        | 834           | 1,082         | 1,090         | 1,473             | 673                 |
| Regina.....        | 518           | 424           | 584           | 575               | 220                 |
| Saint John.....    | 457           | 134           | 345           | 332               | 54                  |
| Saskatoon.....     | 750           | 773           | 370           | 484               | 179                 |
| Three Rivers.....  | 157           | 533           | 647           | 521               | 249                 |
| Toronto.....       | 3,836         | 4,143         | 6,712         | 9,373             | 9,912               |
| Vancouver.....     | 3,750         | 6,758         | 5,831         | 5,028             | 3,324               |
| Victoria.....      | 829           | 1,353         | 1,021         | 1,166             | 629                 |
| Windsor.....       | 839           | 806           | 1,416         | 1,196             | 771                 |
| Winnipeg.....      | 3,242         | 2,881         | 3,228         | 3,070             | 1,458               |
| <b>Totals.....</b> | <b>27,497</b> | <b>34,834</b> | <b>44,853</b> | <b>49,278</b>     | <b>37,324</b>       |

<sup>1</sup> January to September, inclusive.

Over 55 p.c. of the new dwelling units completed in 1950 were in the 17 metropolitan areas of 40,000 population or over; these areas contain about 36 p.c. of the population of Canada.

## **Government Assistance**

Publicly assisted house building in Canada operates under two distinct types of arrangement. In one, government financial assistance in the form of mortgage loans is extended to prospective home-owners and builders through the National Housing Act, 1944, the Veterans' Land Act, 1942, the Farm Improvement Loans Act, 1944, and the Canadian Farm Loan Act, 1927. In the other, the Federal Government carries on direct house-building activities of veterans' rental units, armed service married quarters and, in conjunction with the provincial governments, joint-housing projects for sale or rent. During the seven-year period 1945 to 1951 completions under these various government-sponsored plans accounted for about one-third of the total new permanent dwellings.

The Central Mortgage and Housing Corporation is the Federal Government agency responsible for most of the publicly assisted housing activities. It was incorporated by an Act passed in December 1945 to administer the National Housing Act, 1944, and earlier housing Acts, to provide facilities for the rediscounting of mortgages for lending institutions and to co-ordinate government activities in the housing field. In 1948, the functions of Wartime Housing Limited were transferred to its administration. In November 1950 the charter of Wartime Housing Limited was revived to form Defence Construction Limited, entrusted with carrying out the construction of defence projects requisitioned by the Department of National Defence. Central Mortgage and Housing Corporation provides management and supervisory services to Defence Construction Limited.

**The National Housing Act.**—The National Housing Act, 1944, represents the principal legislation of the Canadian Government in the field of housing.

**Joint Loans.**—Under the joint lending provisions of the Act, Central Mortgage and Housing Corporation joins with approved private lending institutions in making loans for house building to prospective home owners or builders of dwellings for sale or for rent. The Corporation advances 25 p.c. of the loan and the lending institution 75 p.c. The rate of interest is 5 p.c. to the borrower, calculated semi-annually. The maximum amount of joint loan is set at 80 p.c. of an agreed or contract price satisfactory to the Central Mortgage and Housing Corporation. If the sale or contract price is not satisfactory, the maximum amount of loan would be 15 to 20 p.c. less. Joint loans are amortized over a period of not more than 30 years.

**Direct Loans.**—Under the Act, the Central Mortgage and Housing Corporation may make direct loans for house building in areas beyond the normal operations of lending institutions. These are made on a basis similar to that for joint loans. Special provisions were introduced in October 1951 whereby direct loans may be made to prospective home-owner defence workers or builders of dwellings for sale or for rent to defence workers. These loans may amount to 90 p.c. of an agreed sale or contract price of the dwellings and the period of amortization is up to 25 years. Direct loans may also be made for low- and medium-rental units to limited-dividend companies and

companies engaged in primary industries of logging, lumbering, fishing and mining. Up to September 1951, 19 limited-dividend companies had been formed under the sponsorship of business companies or local groups supplemented in some cases by municipal grants or contributions from service clubs. Many of the units constructed through limited-dividend companies are occupied by widows and old-age pensioners. In addition, when private lending institution funds are not available for suitable rental insurance projects, such projects may be financed by direct loans.

*Guarantees.*—The Rental Insurance Plan, instituted in 1948, is designed to encourage the construction of rental housing accommodation. Owners of projects built under the plan are guaranteed a return of rentals sufficient to pay taxes, operating expenses, debt service and a minimum return of 2 p.c. on the equity of the owner. From 1948 to September 1951, projects have been approved involving 14,600 units with an estimated cost of \$106,000,000.

Under the land assembly provisions of the Act, providing for the development of raw land into serviced lots for residential purposes, which are sold at prices considerably below the market price for comparable lots, lending institutions are guaranteed the recovery of their investment, together with an annual return of 2 p.c. Land assembly projects have also been undertaken directly by the Corporation.

*Direct Construction.*—The construction of veterans' rental housing units, first carried out by Wartime Housing Limited and from 1948 by Central Mortgage and Housing, was virtually complete by September 1951. These rental units were constructed under federal-municipal agreements. The administration of the construction of armed service married quarters, also in the hands of the Corporation since 1948, continued during 1951, though on a reduced scale compared with 1949 and 1950.

Under a 1949 amendment to the National Housing Act, projects for the assembly of land and its development and for the construction of houses for sale or rent may be undertaken jointly by the Federal Government and any province, 25 p.c. of the expenditure on such a project to be paid by the province and 75 p.c. by the Government of Canada. By September 1951, eight provinces had passed complementary legislation.

New houses going up in the suburbs of Winnipeg, Man. About 85,000 new dwellings were completed across the country during 1951 and about 46,000 were under construction at the end of the year.







# Labour

**D**URING the past half century, Canada has progressed from an essentially rural and agrarian economy to a basically urban and industrialized economy. This transition has had a profound effect on the Canadian worker, both economically and socially. Increased productivity, brought about in part by tremendous technological advances, has reduced the proportion of the labour force required to provide necessities, thus setting free a larger proportion of workers for the production of other goods and services.

Accompanying the growth of manufacturing industries and the use of changed techniques in the production of an ever-widening variety of products, there has been a great variation in the types of jobs available and in the skills required. Subdivision of labour and specialization tend to make the worker of to-day more dependent upon the work of others to provide him with the increasing necessities of life than was the case in the comparative self-sufficiency of rural life and skilled craftsmanship at the turn of the century.

Increasing industrialization and the rapid growth of urban centres have brought about the need for group organization and protective legislation. Government legislation protects the worker against the hazards of a more complex economic structure, while labour organizations, active in the interests of labour, now form an integral part not only of the community but of the nation as well.

While all change does not necessarily imply progress, the evolution that has taken place in Canadian industry during the past half-century has benefited Canadian workers. Compared with conditions existing in 1900, most workers to-day draw higher wages, work shorter hours under greatly improved working conditions and, in general, enjoy a higher standard of living.

## *The Labour Force*

The labour force of Canada, as measured by quarterly sample surveys conducted by the Dominion Bureau of Statistics, includes those people at work plus those currently available for work. 'Work' in this sense means types of effort for which remuneration is normally received. However, the labour force also includes those persons who did unpaid work which contributed to the running of a farm or a business operated by a relative. Thus a coal-miner or a shopkeeper is considered to be in the labour force but a housewife or a student is not. The labour force is not a fixed body of persons, but is a stream through which most individuals flow for a shorter or longer period. It is constantly changing, as new workers enter and old ones leave.

In June 1951, the Canadian labour force numbered about 5,300,000 people, or almost 55 p.c. of the non-institutional civilian population, 14 years of age or over. Of the 4,500,000 people outside the labour force, about 3,700,000 were women, 85 p.c. of whom were keeping house. Students numbered 650,000 and a slightly larger number of people were too old to work or were voluntarily idle.

About four out of five people in the labour force are male and almost half of all those in the labour force are from 25 to 44 years of age; the average female worker is considerably younger than the average male worker. Occupationally, one worker out of five is in agriculture; geographically, three out of five live in Ontario or Quebec. The percentage of the labour force to the total population 14 years of age or over is lower in Newfoundland, the Maritime Provinces and British Columbia than in the rest of the country. This is particularly true for females.

In non-agricultural industries, which employ nearly 4,000,000 people of whom almost one-quarter are women, about 85 p.c. of the men and 90 p.c. of the women are paid employees. In agriculture, on the other hand, paid employees form a relatively small element—hardly more than one worker in ten, even at harvest season. Farmers without paid workers make up over 55 p.c. of the agricultural labour force and unpaid family workers make up about 27 p.c.

Estimates of the Canadian labour force and its components are shown in the following table.

***Estimates of the Canadian Civilian Labour Force and its Main Components, June 1, 1931, and 1941-51***

(Thousands of persons 14 years of age or over)

| Year<br><br>°       | Persons with Jobs—                |                     |                        |       | Persons Without<br>Jobs and<br>Seeking<br>Work | Total<br>Civilian<br>Labour<br>Force | Persons<br>Not in<br>Labour<br>Force | Civilian<br>Non-<br>Insti-<br>tutional<br>Popula-<br>tion <sup>2</sup> |
|---------------------|-----------------------------------|---------------------|------------------------|-------|------------------------------------------------|--------------------------------------|--------------------------------------|------------------------------------------------------------------------|
|                     | In Non-Agricultural<br>Industries |                     | In<br>Agri-<br>culture | Total |                                                |                                      |                                      |                                                                        |
|                     | Paid                              | Unpaid <sup>1</sup> |                        |       |                                                |                                      |                                      |                                                                        |
| 1931..              | 2,006                             | 421                 | 1,203                  | 3,630 | 475                                            | 4,105                                | 2,934                                | 7,039                                                                  |
| 1941..              | 2,538                             | 476                 | 1,210                  | 4,224 | 193                                            | 4,417                                | 3,552                                | 7,969                                                                  |
| 1942..              | 2,770                             | 488                 | 1,127                  | 4,385 | 134                                            | 4,519                                | 3,381                                | 7,900                                                                  |
| 1943..              | 2,906                             | 434                 | 1,107                  | 4,447 | 75                                             | 4,522                                | 3,275                                | 7,797                                                                  |
| 1944..              | 2,950                             | 369                 | 1,126                  | 4,445 | 62                                             | 4,507                                | 3,349                                | 7,856                                                                  |
| 1945..              | 2,914                             | 363                 | 1,134                  | 4,411 | 72                                             | 4,483                                | 3,509                                | 7,992                                                                  |
| 1946..              | 2,947                             | 481                 | 1,274                  | 4,702 | 126                                            | 4,828                                | 3,890                                | 8,718                                                                  |
| 1947..              | 3,111                             | 547                 | 1,163                  | 4,821 | 91                                             | 4,912                                | 4,018                                | 8,930                                                                  |
| 1948..              | 3,220                             | 542                 | 1,186                  | 4,948 | 82                                             | 5,030                                | 4,088                                | 9,118                                                                  |
| 1949..              | 3,342                             | 553                 | 1,123                  | 5,018 | 103                                            | 5,121                                | 4,180                                | 9,301                                                                  |
| 1950 <sup>3</sup> . | 3,442                             | 568                 | 1,073                  | 5,083 | 150                                            | 5,233                                | 4,457                                | 9,690                                                                  |
| 1951 <sup>3</sup> . | 3,688                             | 543                 | 1,016                  | 5,247 | 85                                             | 5,332                                | 4,522                                | 9,854                                                                  |

<sup>1</sup> Employers, 'own-account' and unpaid family workers. <sup>2</sup> Not including persons in remote areas or Indians on reservations. <sup>3</sup> Includes Newfoundland.

## ***Employment in 1951***

The volume of employment was strengthened by a continuation of the demand for goods that was noted in the previous year—a demand for products required for the rearmament program and for products required to satisfy the domestic market. The rise in the level of employment affected different industries in varying degrees, and competition for the services of skilled workmen supported union pressure for the payment of higher wages and salaries. In many cases wage increases granted in one establishment were followed by adjustments for employees of other firms in the same industry. Earnings in many cases were adjusted to offset increases in the cost of living.

The index of industrial payrolls is a measure of changes in both the volume of employment and rates of payment; it rose to 399.1 at Sept. 1, 1951. The average for the first nine months of 1951 was 370.4, compared with 311.8 for



## CANADA'S LABOUR FORCE



the same period of 1950, an increase of 19 p.c. The rise of 8 p.c. in the volume of employment for the first nine months of 1951 compared with the same period of 1950 contributed substantially to the increased payrolls. In the same comparison, average weekly wages and salaries climbed 10 p.c., rising from \$44.37 to \$48.80.

### *Index Numbers of Employment and Payrolls, and Average Weekly Wages and Salaries, by Industrial Groups, 1950 and 1951*

NOTE.—The figures are averages for the first nine months of 1950 and 1951 and are exclusive of Newfoundland, Yukon and the Northwest Territories. (1939=100)

| Industry                                     | Index Numbers of— |              |               |              |              |               | Average Weekly Wages and Salaries |              |               |
|----------------------------------------------|-------------------|--------------|---------------|--------------|--------------|---------------|-----------------------------------|--------------|---------------|
|                                              | Employment        |              |               | Payrolls     |              |               |                                   |              |               |
|                                              | 1951              | 1950         | P.C. Increase | 1951         | 1950         | P.C. Increase | 1951                              | 1950         | P.C. Increase |
|                                              |                   |              |               |              |              |               | \$                                | \$           |               |
| Forestry (chiefly logging).....              | 207.9             | 137.1        | 51.6          | 557.8        | 326.9        | 70.6          | 46.79                             | 41.59        | 12.5          |
| Mining.....                                  | 116.6             | 110.9        | 5.1           | 238.7        | 206.3        | 15.7          | 58.70                             | 53.35        | 10.0          |
| Manufacturing.....                           | 189.5             | 174.8        | 8.4           | 419.2        | 350.3        | 19.7          | 50.36                             | 45.65        | 10.3          |
| Durable goods.....                           | 235.5             | 207.8        | 13.3          | 522.4        | 418.3        | 24.9          | 53.83                             | 48.86        | 10.2          |
| Non-durable goods                            | 159.6             | 153.4        | 4.0           | 343.8        | 301.0        | 14.2          | 47.03                             | 42.82        | 9.8           |
| Construction.....                            | 169.5             | 158.3        | 7.1           | 427.7        | 359.8        | 18.9          | 47.15                             | 42.79        | 10.2          |
| Transportation, storage and communication... | 174.7             | 164.9        | 5.9           | 324.8        | 279.3        | 16.3          | 53.22                             | 48.60        | 9.5           |
| Public utility operation.....                | 186.3             | 183.0        | 1.8           | 347.4        | 314.5        | 10.5          | 55.02                             | 50.75        | 8.4           |
| Trade.....                                   | 172.4             | 164.4        | 4.9           | 333.1        | 290.7        | 14.6          | 42.23                             | 38.58        | 9.5           |
| Finance, insurance and real estate....       | 167.7             | 153.9        | 9.0           | 264.7        | 229.9        | 15.1          | 45.85                             | 43.65        | 5.0           |
| Service.....                                 | 180.5             | 177.7        | 1.6           | 344.5        | 317.4        | 8.5           | 31.31                             | 29.26        | 7.0           |
| <b>Industrial Composite.....</b>             | <b>178.0</b>      | <b>164.7</b> | <b>8.1</b>    | <b>370.4</b> | <b>311.8</b> | <b>18.8</b>   | <b>48.80</b>                      | <b>44.37</b> | <b>10.0</b>   |

There is some interest in noting which of two factors—increased employment or increased wages and salaries—was the principal cause of the increase in payrolls. Examination of percentage increases shown in the above table indicates that in forestry, durable goods manufacturing and finance, insurance

and real estate the increased payrolls were more heavily influenced by increased employment, while in the remaining industries the principal factor appears to have been increased wages and salaries. In each case, of course, both factors influenced the payroll increase.

Provincially, the greatest increase in employment in the first nine months of 1951 over the same period of 1950 occurred in Quebec, followed in order by Ontario, Alberta, New Brunswick, British Columbia, Prince Edward Island, Saskatchewan, Nova Scotia and Manitoba.

### *Index Numbers of Employment, by Provinces, 1951 compared with 1950*

NOTE.—Figures are averages for the first nine months of 1950 and 1951.

| Province             | 1950  | 1951  | P.C.<br>Increase | Province                            | 1950         | 1951         | P.C.<br>Increase |
|----------------------|-------|-------|------------------|-------------------------------------|--------------|--------------|------------------|
| Prince Edward Island | 165.1 | 174.5 | 5.7              | Manitoba.....                       | 165.4        | 171.5        | 3.7              |
| Nova Scotia.....     | 139.2 | 146.6 | 5.3              | Saskatchewan.....                   | 137.4        | 145.0        | 5.5              |
| New Brunswick.....   | 166.2 | 178.1 | 7.1              | Alberta.....                        | 185.5        | 199.5        | 7.5              |
| Quebec.....          | 151.4 | 165.6 | 9.4              | British Columbia...                 | 176.9        | 187.6        | 6.0              |
| Ontario.....         | 174.4 | 189.8 | 8.8              | <b>Provincial<br/>Composite....</b> | <b>164.7</b> | <b>178.0</b> | <b>8.1</b>       |

### *Wage Rates, Hours of Labour and Working Conditions*

Index numbers of wage rates, compiled in the Department of Labour, show the general movement of wage rates for the main industrial groups as well as for individual industries, but cannot be used to compare rates in one industry with those in another. The basic statistics are average straight-time wage rates or average straight-time piece-work earnings and do not, therefore, reflect overtime or other premium payments. The survey is conducted as at Oct. 1 each year. The general increase in wage rates from 1939 to 1950 was 116 p.c., with an additional 4.3 p.c. rise between October 1950 and April 1951.

### *Index Numbers of Wage Rates for Certain Main Groups of Industries, 1901-50*

(Rates in 1939 = 100)

| Year                  | Logging | Coal<br>Mining | Metal<br>Mining | Manu-<br>fac-<br>turing | Con-<br>struc-<br>tion | Water<br>Trans-<br>port | Steam<br>Rail-<br>ways | Electric<br>Rail-<br>ways | Tele-<br>phones | General<br>Aver-<br>age <sup>1</sup> |
|-----------------------|---------|----------------|-----------------|-------------------------|------------------------|-------------------------|------------------------|---------------------------|-----------------|--------------------------------------|
| 1901...               | 51.4    | 47.4           | 61.2            | ..                      | 35.3                   | 43.9                    | 33.7                   | 32.8                      | ..              | 38.1                                 |
| 1905...               | 57.0    | 49.5           | 58.7            | ..                      | 42.8                   | 44.7                    | 36.5                   | 37.7                      | ..              | 43.1                                 |
| 1910...               | 64.0    | 54.0           | 62.5            | ..                      | 50.9                   | 48.4                    | 44.1                   | 44.0                      | ..              | 49.9                                 |
| 1915...               | 61.1    | 58.7           | 66.2            | 50.1                    | 59.4                   | 54.0                    | 49.8                   | 50.2                      | ..              | 53.2                                 |
| 1920...               | 142.5   | 113.3          | 102.9           | 102.4                   | 106.0                  | 105.2                   | 108.2                  | 99.7                      | 92.2            | 107.0                                |
| 1925...               | 95.2    | 96.1           | 93.3            | 92.3                    | 99.8                   | 90.4                    | 91.2                   | 96.4                      | 89.1            | 93.8                                 |
| 1930...               | 97.5    | 97.1           | 93.9            | 95.5                    | 119.1                  | 97.2                    | 100.0                  | 102.3                     | 94.7            | 99.9                                 |
| 1935...               | 73.1    | 95.0           | 92.6            | 87.0                    | 93.6                   | 81.1                    | 90.1                   | 94.3                      | 93.0            | 88.4                                 |
| 1940...               | 104.9   | 102.1          | 102.8           | 104.3                   | 104.3                  | 105.2                   | 100.0                  | 103.9                     | 101.3           | 103.9                                |
| 1945...               | 153.3   | 146.2          | 128.2           | 146.5                   | 131.1                  | 144.6                   | 125.5                  | 126.6                     | 125.6           | 141.8                                |
| 1946...               | 167.4   | 146.7          | 135.7           | 161.5                   | 143.9                  | 162.3                   | 142.3                  | 139.5                     | 125.2           | 155.2                                |
| 1947...               | 195.1   | 166.7          | 157.7           | 183.3                   | 155.0                  | 183.8                   | 142.3                  | 162.3                     | 132.2           | 173.7                                |
| 1948...               | 218.8   | 192.9          | 173.1           | 205.9                   | 176.3                  | 213.5                   | 170.2                  | 175.0                     | 140.4           | 195.8                                |
| 1949...               | 216.2   | 196.1          | 180.8           | 217.9                   | 184.2                  | 213.8                   | 170.2                  | 179.0                     | 151.5           | 204.6                                |
| 1950 <sup>p</sup> ... | 213.7   | 201.8          | 192.9           | 231.4                   | 194.0                  | 236.3                   | 179.2                  | 191.1                     | 158.9           | 216.1                                |

<sup>1</sup> Includes laundries.

In 1950, the average normal weekly hours of work in manufacturing industries, weighted by the number of male workers, was 44.4. The average



*A high standard of efficiency and quality of production is generally the result of teamwork in large manufacturing plants.*

weekly hours in the major manufacturing groups were: food and beverages, 45·4; tobacco and tobacco products, 42·9; rubber products, 42·0; leather products, 45·3; textile products (except clothing), 46·0; clothing (textile and fur), 43·1; wood products, 45·7; paper products, 47·1; printing, publishing and allied industries, 40·7; iron and steel products, 43·2; transportation equipment, 43·7; non-ferrous metal products, 45·2; electrical apparatus and supplies, 42·1; non-metallic mineral products, 46·8; products of petroleum and coal, 41·2; chemical products, 43·6; and miscellaneous manufacturing industries, 44·6.

Normal weekly hours in the logging industry in the British Columbia coastal area were predominantly 40; in Eastern Canada, the majority worked 60 hours, although 48 and 54 hours were common. In the coal-mining industry, the hours varied from 40 to 48 per week, with 40 being predominant. In metal mining, the 48-hour week was general in all provinces except British Columbia, where the 44-hour week prevailed. The average weekly hours of work for male employees in wholesale trade was 44·2 in 1950, and the average in retail trade was 44·2 for male employees and 42·2 for female employees.

Five provinces regulate hours of work by statute. A 48-hour week for both men and women workers became effective in Ontario in 1944 and in Alberta in 1945. British Columbia adopted a 44-hour week in 1946, and the next year Saskatchewan enacted a statute stipulating that no person could be employed for more than 44 hours in a week, unless an overtime rate of time-





*Packaging bacon.  
Average earnings of  
women employees  
in the meat-products  
industry amounts to  
\$30.73 per week.*

and-a-half were paid. In 1949, Manitoba established a maximum work week of 48 hours for men and 44 for women with payment for overtime beyond these limits at time-and-a-half rate. These statutes exempt a few classes and permit exceptions to be made by the administrative authorities. Almost 60 p.c. of plant employees and 70 p.c. of office workers in manufacturing were reported during 1950 as working a five-day week.

Practically all workers in manufacturing now receive an annual paid vacation of at least one week. In recent years, there has been an increase in the number of employees who may become eligible for a second or third week's vacation after longer periods of employment; there has also been a decrease in the number of years of employment required before these longer vacations are granted. More than 90 p.c. of the plant workers and 95 p.c. of the office employees in manufacturing industries in 1950 were in establishments which observed six or more statutory holidays. Most of the office employees were paid for all of the statutory holidays observed, but this was not so often the case for plant employees.

### ***Labour Legislation***

At almost every session of the Federal Parliament and of the provincial legislatures during the past 50 years there has been some enactment affecting labour. In that period, the scope of labour legislation has widened by a gradual process from the protection of women and children to practically the whole field of relations between wage-earners and wage-payers.

Under federal legislation, an unemployment insurance plan covers most employed workers throughout Canada and, associated with unemployment insurance, a nation-wide chain of employment offices is available to all workers and employers. In the important fields of transportation and communication and other undertakings under federal jurisdiction, legislation (the Industrial Relations and Disputes Investigation Act 1948) is in effect

for the investigation, conciliation and settlement of industrial disputes and for the encouragement of collective bargaining. The Canada Shipping Act sets standards for the welfare and safety of seamen. In the considerable area of activity in which federal funds are spent on government contracts, the Fair Wages Policy ensures reasonable standards of wages and hours to the workers employed. Through the joint action of the Federal and Provincial Governments, an expanding vocational training program is being developed.

Each provincial legislature has responded to the needs and pressures in its own province. Nevertheless, there has been an effort, through conferences sponsored by the Federal Department of Labour and through the exchange of information and ideas in other ways, to achieve uniformity of standards. While provisions vary in detail from province to province, there has been a tendency towards uniformity of purport in the main labour laws.

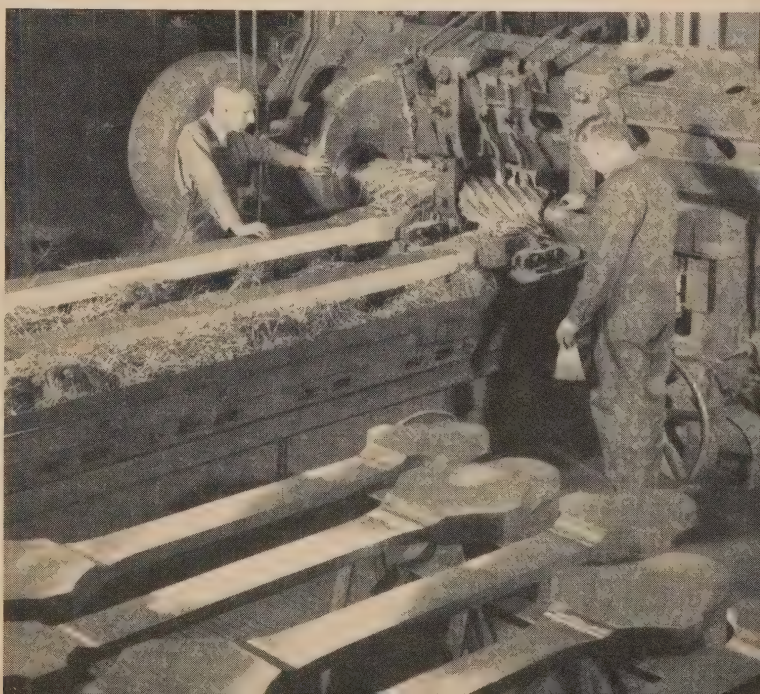
All provinces have labour relations Acts which declare the right of workers to organize and to bargain collectively. All but Prince Edward Island provide for the conciliation of disputes. All provinces except Newfoundland and Prince Edward Island have factory Acts, and all except Prince Edward Island have mines Acts, which are enforced by steadily growing inspection staffs.

All provinces provide compensation for industrial accidents and diseases through a system of state insurance under which employers are collectively liable for the entire cost of compensation and medical aid. There is a high degree of uniformity in these Acts, but benefits vary somewhat.

All provinces except Prince Edward Island have minimum wage legislation which applies to most classes of workers, except farm labourers and domestic servants. These statutes are very similar, but the rates fixed under them vary considerably. The Nova Scotia Act does not apply to men, and in Ontario no orders respecting men are in effect.

In seven provinces there is legislation of the industrial standards type for applying wage and hour conditions reached by agreement to all employers

*Milling main rods in the Angus shops, Montreal, repair and construction plant for the Canadian Pacific Railway's 87,992 units of motive power and rolling-stock. Almost 7,500 men are employed here on the production of all required equipment from nuts and pins to giant locomotives.*





and workers in the industry concerned in a specified area. In six provinces most employers are required to grant their workers a paid vacation, usually of one week. Five provinces have laws setting working hours of eight per day and 48 or less per week. All provinces have legislation fixing a minimum age for employment in most industrial undertakings and some other employment.

Two laws of a type new in Canada were passed by the Ontario Legislature in 1951—a law providing for equal pay for men and women doing the same work in the same establishment and a law prohibiting discrimination in employment on the grounds of race, creed or colour.

The worker of to-day has many rights laid down by statute affecting the terms of his employment, which provide minimum standards. But the basis of his position in the Canadian economy is his freedom—established by legislation—to seek higher standards from his employer through the collective strength of the union of his choice. It is this freedom, together with his productive efficiency, that has helped the Canadian worker to achieve his present standard of living, one of the highest in the world.

**Collective Bargaining and Conciliation Legislation.**—The Industrial Relations and Disputes Investigation Act, which came into effect on Sept. 1, 1948, replacing earlier labour relations legislation, applies only to industries within federal jurisdiction, i.e., navigation, shipping, interprovincial railways, canals, telegraphs, steamship lines and ferries, both interprovincial and international aerodromes and air transportation, radio broadcasting stations, and works declared to be for the general advantage of Canada. The Act also provides that provincial authorities may enact similar legislation for application to employees within provincial jurisdiction and make arrangements for the administration of such legislation by the federal authorities.

The Minister of Labour and the Canada Labour Relations Board jointly administer the provisions of the Act. The Minister administers those provisions providing for the appointment of Conciliation Officers, Conciliation Boards, Industrial Inquiry Commissions, for consent to prosecute, and for the making of complaints that the Act has been violated or that a party has failed to bargain in good faith. The Canada Labour Relations Board, composed of four representatives each of organized labour and management, a chairman and a vice-chairman, administers those portions of the Act that concern the certification of bargaining agents, the writing of a procedure into a collective agreement for the final settlement of disputes concerning the meaning or violation of such agreement, and the investigation of complaints that a party has failed to bargain collectively.

The legislation also provides for the right of free association of employees and employers, for the safeguarding of that right by prohibiting unfair labour practices, for compulsory collective bargaining between trade unions and employees upon notice following certification or upon notice to negotiate the renewal of an agreement. Where agreement by direct negotiation is impossible, conciliation services may be provided by officers and boards. Strikes and lockouts and the taking of strike votes are prohibited until the legislative procedures of negotiation and conciliation laid down in the Act have either been satisfied or the Minister has refused to appoint a Conciliation Board. Where a Board has been appointed, a strike or lockout may take place seven days after the report of the Board has been given to the Minister





*Final assembly line in an automobile plant.*

of Labour. Where the Minister neglects to appoint a Board, a strike or lockout may take place after 15 days or earlier if the Minister gives notice of refusal to appoint a Board.

### ***Labour Organization***

Almost one-third of Canada's non-agricultural wage-earners are union members. Geographically, the distribution of this group follows closely that of the population generally. In each province, except British Columbia, approximately 30 p.c. of the workers have joined unions; almost 40 p.c. of the workers are organized in British Columbia. Within the provinces, each urban community with a population of 30,000 or more contains at least 2,000 union members. These communities account for three-quarters of the membership.

The majority of union members belong to unions affiliated with one of the larger central labour congresses. At Jan. 1, 1951, approximately 80 p.c. of the membership was included in unions belonging to the Trades and Labour Congress of Canada (471,000 members) and the Canadian Congress of Labour (313,000 members). The greater number of unions affiliated with these two congresses are international organizations with headquarters in the United States. A further 86,000 workers belong to the Canadian and Catholic

Confederation of Labour, and about 13,000 are in unions affiliated only with United States labour congresses. The remainder of the 1,028,000 unionists belong to smaller labour congresses or are independent. The largest group among the independent unions is the international railway brotherhoods, comprising 40,000 members.

The major function carried on by the unions is collective bargaining. To-day, almost 5,000 agreements are in effect throughout Canada. The agreements include references to such matters as wage rates, hours of work, union security, vacations, and statutory holidays. In the major industrial groups, the percentages of workers under agreement during 1949 were as follows: mining 51 p.c.; manufacturing 48 p.c.; construction 49 p.c.; electricity and gas 46 p.c.; transportation and communication 86 p.c.; trades 7 p.c.; and services 10 p.c. There is little organization as yet among agricultural workers and, as a consequence, practically no collective bargaining takes place.

### ***Unemployment Insurance***

The Unemployment Insurance Act 1940, which came into operation in July 1941, provides for a contributory scheme of unemployment insurance and a nation-wide free employment service. The Act is administered by an Unemployment Insurance Commission, consisting of a Chief Commissioner and two Commissioners—one appointed after consultation with organized labour and one after consultation with employers. Regional and local offices strategically located across the country handle applications for employment and claims for unemployment insurance benefit.

All persons employed under a contract of service are insured unless specifically excepted. Exceptions include such employments as agriculture, fishing, domestic service, school-teaching, and those employed on other than an hourly, daily, piece or mileage basis with annual earnings exceeding \$4,800.



*Apprentice craftsman at work on silver jewellery.*



Persons employed on an hourly, daily, piece or mileage basis are insured regardless of their earnings level. Employers and their insured workers contribute equally, the contributions being based on the wages or salary earned. The Federal Government adds one-fifth of the total employer-employee contributions and pays administration costs.

### *Rates of Contribution and Benefit under the Unemployment Insurance Act*

(Effective July 1, 1950)

| Range of Earnings        | Weekly Contributions |                         | Rates of Benefit              |        |                            |        |
|--------------------------|----------------------|-------------------------|-------------------------------|--------|----------------------------|--------|
|                          | Em-<br>ployer        | Em-<br>ployed<br>Person | Person Without<br>a Dependant |        | Person With a<br>Dependant |        |
|                          |                      |                         | Daily                         | Weekly | Daily                      | Weekly |
|                          | cts.                 | cts.                    | \$                            | \$     | \$                         | \$     |
| While Earning in a Week— |                      |                         |                               |        |                            |        |
| Less than \$ 9.00.....   | 18                   | 18                      | 0.70                          | 4.20   | 0.80                       | 4.80   |
| \$ 9.00 to \$14.99.....  | 24                   | 24                      | 1.00                          | 6.00   | 1.25                       | 7.50   |
| \$15.00 to \$20.99.....  | 30                   | 30                      | 1.35                          | 8.10   | 1.70                       | 10.20  |
| \$21.00 to \$26.99.....  | 36                   | 36                      | 1.70                          | 10.20  | 2.15                       | 12.90  |
| \$27.00 to \$33.99.....  | 42                   | 42                      | 2.05                          | 12.30  | 2.60                       | 15.60  |
| \$34.00 to \$47.99.....  | 48                   | 48                      | 2.40                          | 14.40  | 3.05                       | 18.30  |
| \$48.00 or more.....     | 54                   | 54                      | 2.70                          | 16.20  | 3.50                       | 21.00  |

During the calendar year 1950 there were 1,057,979 initial and renewal claims filed, 832,767 claimants were considered entitled to benefit on initial and on renewal claims, and benefit payments totalled \$94,500,207. Comparable figures for 1949 were 933,852 claims, 748,664 entitlements to benefit, and payments of \$69,351,039.

During the first six months of 1951, a total of 581,647 initial and renewal claims were filed in Local Offices across Canada. Claimants considered entitled to benefit on initial and on renewal claims numbered 421,656 while benefit payments amounted to \$46,277,310.

### *Persons Insured under the Unemployment Insurance Act, by Industrial Group, Sex and Province, as at Apr. 1, 1950*

| Industrial Group                              | Males            | Females        | Province            | Males            | Females        |
|-----------------------------------------------|------------------|----------------|---------------------|------------------|----------------|
| Agriculture.....                              | 1,240            | 440            | Newfoundland.....   | 37,660           | 5,630          |
| Forestry and logging..                        | 38,600           | 890            | P. E. Island.....   | 5,720            | 2,250          |
| Fishing, hunting and<br>trapping.....         | 420              | 180            | Nova Scotia.....    | 72,050           | 16,090         |
| Mining, quarrying and<br>oil wells.....       | 79,950           | 1,730          | New Brunswick....   | 61,410           | 15,070         |
| Manufacturing.....                            | 731,890          | 254,790        | Quebec.....         | 529,300          | 204,490        |
| Construction.....                             | 138,180          | 4,300          | Ontario.....        | 772,170          | 302,460        |
| Transportation, storage<br>and communication. | 255,320          | 39,580         | Manitoba.....       | 110,460          | 38,740         |
| Public utility operation                      | 28,540           | 3,260          | Saskatchewan.....   | 49,210           | 18,900         |
| Trade.....                                    | 264,310          | 159,470        | Alberta.....        | 93,810           | 29,390         |
| Finance, insurance and<br>real estate.....    | 32,260           | 52,500         | British Columbia... | 193,490          | 60,250         |
| Service.....                                  | 164,880          | 126,240        |                     |                  |                |
| Unspecified.....                              | 9,490            | 2,250          |                     |                  |                |
| Unemployed.....                               | 180,200          | 47,640         |                     |                  |                |
| <b>Totals.....</b>                            | <b>1,925,280</b> | <b>693,270</b> | <b>Totals.....</b>  | <b>1,925,280</b> | <b>693,270</b> |





*Training of personnel within industry has been found profitable for both employer and employee.*

Provision was made for the payment of supplementary benefits during the period Feb. 28 to Apr. 15, 1950, and in subsequent years during the period January to March, to certain classes of contributors whose contributions would ordinarily be insufficient to establish benefit rights. Both employee and employer contributions were increased by one cent a day to provide these payments at rates equal to approximately 80 p.c. of the regular benefit rates. During the period for which supplementary benefit was payable in 1950, 106,836 persons were paid \$4,556,695.

The National Employment Service is available to all and is widely used by non-insured persons as well as insured workers. With regard to the latter, through the employment service the Commission certifies that a claimant for unemployment insurance benefit is unemployed and that suitable work is, or is not, available. This test is a basic condition for the receipt of unemployment insurance.

During the post-war years the National Employment Service, in co-operation with the Department of Labour, has played an important role in placing displaced persons from Europe in employment. From the inception of the Group Immigration Plan in August 1947 until Aug. 31, 1951, approximately 52,000 workers with 16,500 dependants were directed to employment.

## ***Vocational Training***

The Training Branch of the Department of Labour is responsible for the administration of the Vocational Training Co-ordination Act, 1942, which provides financial assistance to the provinces for various types of training agreed upon between the Federal Government and the Provincial Governments concerned.

Training programs and activities include apprenticeship training, the training of supervisors and foremen, trade training for unemployed persons who require such training to fit them for suitable employment, special programs for handicapped persons, and both general and specialized courses under the Youth Training program for rural young people in agriculture, homecraft and handicrafts. Financial assistance is also given to nurses-in-training and to university students in the form of grants or loans.

The cost of classes specially organized for the training of workers in defence industries is shared on the basis of 75 p.c. from the Federal Government and 25 p.c. from the province in which the classes are conducted. The full cost of organizing and operating trade-training programs for members of the Armed Forces and special classes for the rehabilitation of veterans is borne by the Federal Government.

The Federal Government is assisting in the organization and operation of vocational technical schools below university grade in each province for a ten-year period which started in 1945. The \$20,000,000 provided for this purpose is allocated according to the number of persons in each province in the age group 15 to 19 years. An additional \$10,000,000 has been allotted to be used for capital expenditures for buildings and equipment before Mar. 31, 1952. Under the terms of agreement, the amount paid to a province must be matched from the provincial treasury. The total budget of the Training Branch for the year ended Mar. 31, 1952, is \$4,942,431.

## ***Government Annuities***

The Canadian Government Annuities Act was passed in 1908 to authorize the issue of Government annuities, the purpose being to encourage and aid Canadians to make provision for old age. Any resident of Canada may purchase a Canadian Government annuity up to \$1,200, payable for life only, or for life with a guarantee period of 5, 10, 15 or 20 years, or for the lives of joint annuitants with continuation to the survivor. Immediate annuities may be purchased in a lump sum and are payable immediately. Deferred annuities, usually bought by employed persons, are purchased by payment of periodic premiums or a single premium, and are payable on retirement.

Annuities may be purchased under individual contracts or by members of groups under group contracts. A group contract is generally an agreement with an employer to implement a retirement plan approved by the Minister of Labour, the purchase money being, as a rule, derived jointly from the employer contributions and deductions from wages.

On Mar. 31, 1951, annuity income of \$24,569,791 was payable under 55,026 contracts. The number of deferred annuities being purchased by individuals privately was 92,488. The number of group contracts was 900 covering 128,299 registered employees. The balance at credit of the Annuities Fund was \$620,398,995.





# Transportation Communications

**E**XTENSIVE and efficient transportation and communication facilities are vitally necessary to Canada, perhaps more so than to most other countries. Canada extends more than 4,000 miles from east to west and its main topographic barriers run north and south, tending to separate one section of the country from another. The relatively small population of 14,000,000 is mainly concentrated in a narrow uneven strip along the southern border but, as Canada's vast resources come under development, the movement is gradually northward. Distance to markets is always great, whether goods are destined for consumption in the country or for export. The task of keeping this vast area—3,845,744 sq. miles—and its scattered population closely integrated by rail, road, water and air transportation facilities and by radio, telegraph, telephone and post office communication facilities is fundamentally important to Canada's economic development and to the maintenance of national unity and identity.

## Steam Railways

Canada's present total of 57,997 miles of railway is surpassed only by the railway mileage of the United States and the Union of Soviet Socialist Republics, both countries with populations far greater than that of Canada. The railway network is based on two transcontinental systems, the Canadian Pacific, a joint-stock corporation which began transcontinental operations in 1885, and the Canadian National, a government-owned system formed from the consolidation of several private and government lines in 1923.

In all, three separate transcontinental railways were built. The Canadian Pacific was begun soon after Confederation to link the constituent parts of the new country and by 1885 the railway spanned the continent and the west was opened for settlement. The wheat boom of the early 1900's brought population, prosperity and rapid economic expansion and precipitated another era of railway building. Two new transcontinental systems, the Canadian Northern and the Grand Trunk Pacific, were rushed to completion by 1915. However, immigration was stopped by the War and traffic in the western provinces did not develop as anticipated. These two new systems, soon in financial difficulties, were brought under government ownership between 1917 and 1921 and consolidated as the Canadian National Railways in 1923. The C.P.R. and C.N.R. systems have since co-operated, under government supervision, in an attempt to reduce unnecessary duplication of service. The Board of Transport Commissioners controls freight and passenger rates as well as other matters relating to the construction, operation and safety of railways.

As a group, Canada's railways have not been prosperous. The ratio of expenses to revenues rose from around 70 p.c. to over 90 p.c. between 1917 and 1920 and remained high thereafter until the second world war, when greatly increased freight traffic caused a sharp reduction in the ratio. Since



*Diesel-hauled freight train rounding Jackfish Curve on the north shore of Lake Superior. The C.P.R. mainline service in this district, where 44 road freights are in operation, is the first to be completely dieseled.*

the War, a steadily rising trend has been in evidence caused by higher costs for materials and labour. Also, the great development in highway and air transportation in the past two decades has had its effect on railway business. Gross operating revenues of Canadian railways in 1950 amounted to \$958,985,751 and operating expenses to \$833,726,562, as compared with \$894,397,264 and \$831,456,446, respectively, in 1949. In 1950, 55,537,900,239 ton-miles of freight were carried, a decrease from the 56,338,230,997 ton-miles reported for 1949. Passengers carried numbered 31,139,092 as compared with 34,883,803 in the previous year, and employees averaged 190,385 as compared with 192,366.

### **Urban Transport Services**

Widespread changes in urban transport systems have been taking place in recent years. Electric street railways have been replaced or supplemented in many Canadian cities by motor-buses and trolley-buses, and a large number of inter-urban electric lines have been abandoned. In most cases urban and inter-urban transportation systems are owned and operated by the municipalities.

In 1950, urban transit systems carried 1,457,417,000 passengers compared with 1,505,656,000 in 1949. Inter-urban services carried 103,054,475 passengers, 10,070,000 fewer than in the previous year. There has been a definite

downward trend in traffic on transit facilities since 1948. One contributing factor is the great increase in the number of new motor-vehicles available in Canada. A large proportion of the 2,000,000 private passenger vehicles in use, including motor-cars, motorcycles and bicycles, is competitive with the transit systems. The recent rapid development of suburban areas has had the effect of encouraging the purchase of private cars as well as increasing the operating costs of transit company service. At the same time, the advance in fares made necessary mainly because of this suburban expansion has discouraged to some extent the previously profitable short-haul city traffic. General fare advances were responsible for the increase in revenue from \$147,494,859 in 1949 to \$152,153,548 in 1950, since patronage dropped 3·2 p.c. in the year.

Though the industry generally showed little profit in 1950, considerable amounts continued to be spent on modernization and improvements.

## **Roads and Highways**

Canada, at the end of 1949, had 161,799 miles of surfaced road and 399,548 miles of non-surfaced road. Of the surfaced road, 138,980 miles were gravel, 20,503 miles were bituminous surfaced, 2,237 miles concrete and 79 miles other surfaces.

All roads, except those in the Territories, the National Parks and Indian Reservations, which are the responsibility of the Federal Government, are under the jurisdiction of provincial and municipal authorities. Of the \$270,000,000 spent on new construction and maintenance of roads, bridges, ferries, etc., in 1949, \$241,000,000 was supplied by the provincial governments and the remainder by the Federal and municipal governments. To appreciate fully the extent of usage of public roads and the high cost of maintenance, it must be realized that motor-vehicle registrations have more than doubled in the past fifteen years, rising from 1,176,116 in 1935 to 2,600,269 in 1950. In addition to domestic traffic, Canadian highways carry millions of foreign tourist cars annually, 6,771,000 entries having been recorded in 1950. Again, apart from wear and tear by vehicles, the natural climatic conditions are severe and play havoc with the roadways in the form of snow, frost, floods, etc.

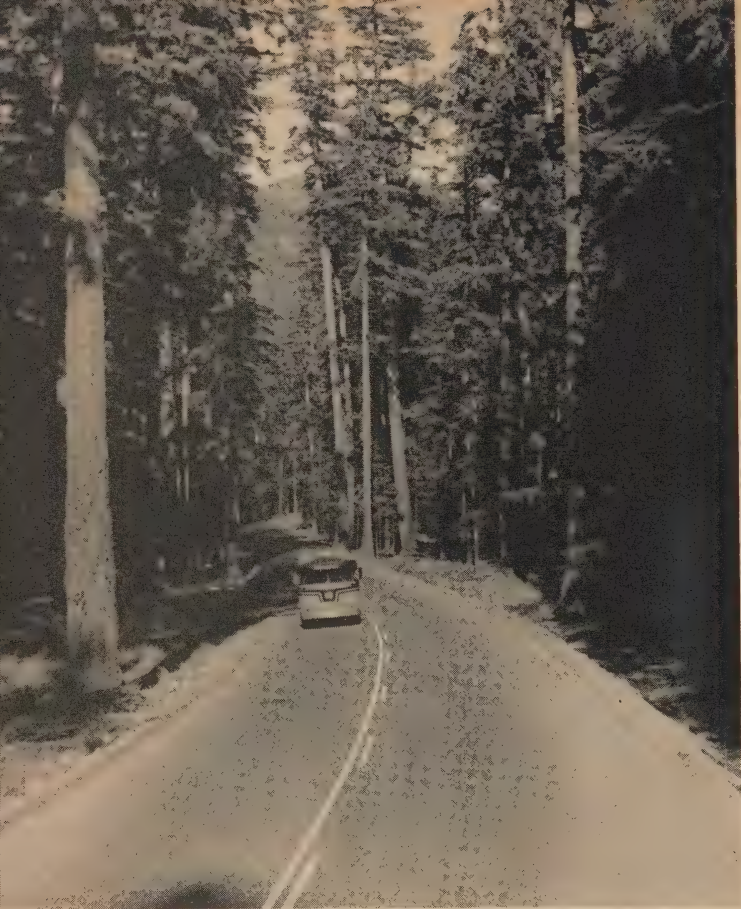
The construction of a national coast-to-coast highway was sanctioned in December 1949, each province to construct and maintain that portion of the highway within its borders. The general administration and co-ordination of the program is the responsibility of the Federal Government, which also shares with each province the cost of new construction to a maximum of 50 p.c. as well as part of the cost of existing highways taken into the plan.

All the provinces, except Nova Scotia and Quebec, had signed agreements with the Federal Government by mid-summer 1950. The mileage of the route selected by the participating provinces totals 4,270 miles. By the end of March 1951, 3,948 miles were considered passable for vehicular traffic, but only 1,741 miles were paved.

## **Motor-Vehicles**

There were more motor-vehicles registered in Canada in 1950 than ever before. Of the 2,600,269 registrations—compared with 2,290,628 in 1949—1,906,927 were passenger cars and 693,342 commercial vehicles, including

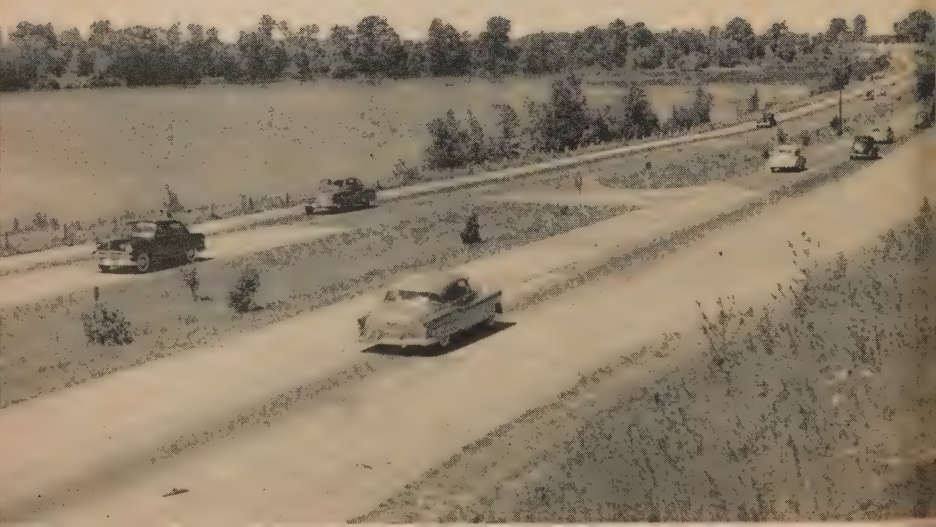




The Alberni-Parksville Highway through McMillan Provincial Park, B.C.



The Queen Elizabeth Way between Toronto and Hamilton, Ont.



urban trucking  
terminal speeds  
with highway and  
urban service.  
Eight is trans-  
ferred from city  
trucks on the left  
waiting high-  
way trailers on the  
right, or vice versa.



616,071 trucks, 8,417 buses and 68,854 other vehicles. Registrations in the different provinces were as follows: Newfoundland, 16,375; Prince Edward Island, 15,383; Nova Scotia, 94,743; New Brunswick, 74,415; Quebec, 433,701; Ontario, 1,104,080; Manitoba, 157,546; Saskatchewan, 199,866; Alberta, 230,624; British Columbia, 270,312; and Yukon and the Northwest Territories, 3,224.

Provincial revenues from motor-vehicle registrations and licences reached a high of \$67,167,681 in 1950, and provincial gasoline tax revenues amounted to \$155,146,585. Taxable gasoline sold, most of which was consumed by motor-vehicles, amounted to 1,508,691,586 gal. in 1950.

The apparent supply of new passenger vehicles in 1950 amounted to 341,141 cars, 128,820 more than in 1949. The 1950 figure includes 259,481 cars made for sale in Canada plus 81,722 imports less 62 re-exports of imported cars. In that year, 324,903 passenger cars valued at \$661,673,944 were sold, as well as 104,792 trucks and buses valued at \$223,995,095. Only 32 p.c. of the number and 22 p.c. of the value of these vehicles were financed by finance companies. The average financed value was \$1,415.

**Motor-Carriers.**—The movement of freight and passengers by motor-vehicle has assumed great importance in the national transportation picture during the past quarter-century. Since the end of the second world war particularly, motor-vehicle traffic has made giant strides forward with the improvement in equipment and the extension of hard-surfaced highways.

Motor-carrier statistics do not represent a complete coverage of the industry, which is made up predominantly of small businesses with hundreds of licensees each operating one or two trucks. Their bookkeeping is often sketchy and, at the same time, amalgamations and retirements are numerous, making a census difficult. In 1949, 3,493 carriers reported and, of these, 1,830 were small operators with revenues under \$8,000 for the year, most of them driver-owner operated. Eight hundred and forty carriers had revenues of between \$8,000 and \$19,999 and 823 had revenues of \$20,000 or over.





The sea in an essential highway for contact between Newfoundland's coastal communities and for reaching the outside world. Steamships on scheduled services call at all important settlements carrying freight, mail and passengers.

### Statistics of Motor-Carriers, 1946-49

| Item                                                 | 1946        | 1947        | 1948        | 1949                     |
|------------------------------------------------------|-------------|-------------|-------------|--------------------------|
| Investment in land, buildings, and equipment..... \$ | 72,725,752  | 91,278,837  | 100,116,005 | 119,207,606              |
| Revenues..... \$                                     | 102,241,162 | 118,139,496 | 132,579,445 | 152,841,541              |
| Equipment—                                           |             |             |             |                          |
| Trucks.....No.                                       | 6,652       | 7,183       | 7,858       | 7,980                    |
| Tractors, semi-trailer.....“                         | 2,387       | 2,657       | 2,867       | 3,875                    |
| Trailers.....“                                       | 1,368       | 1,791       | 1,694       | 2,314                    |
| Buses.....“                                          | 3,824       | 4,125       | 4,090       | 4,612                    |
| Passengers carried.....“                             | 261,041,676 | 281,651,437 | 295,671,927 | 376,187,096 <sup>1</sup> |
| Freight, inter-city and rural.... ton                | 11,944,384  | 13,071,660  | 13,843,387  | 14,021,489               |

<sup>1</sup> Increase due largely to the inclusion of two companies formerly reported as electric railways.

## Shipping

Shipping on the waterways of Canada, including canals, inland lakes and rivers, is open to all countries of the world on equal terms except in the case of the coasting trade.

During 1950, customs officials reported 115,485 vessel arrivals in foreign and coasting service as compared with 112,577 in 1949 and 106,279 in 1948. It was, relatively, the busiest year since 1940 when a war-inspired peak of 124,453 arrivals was recorded. Registered net tonnage of vessels arriving amounted to 98,883,946 tons, the heaviest on record, distributed among the five major ports as follows: Vancouver, 15,677,586 tons; Montreal, 8,768,187 tons; Victoria, 8,269,299 tons; Halifax, 4,198,016 tons; and Quebec 3,931,461 tons. The total tonnage of all cargoes loaded and unloaded in foreign trade at all Canadian ports amounted to 58,189,111 tons of which 26,858,544 tons or 46.2 p.c. was carried by vessels of Canadian registry.



As in former years, the bulk of foreign trade was with the United States which accounted for 38,380,910 tons, or 66 p.c. of the total. Canadian vessels carried almost two-thirds of this water-borne commerce. In trade with other countries, however, Canadian shipping fared less well, carrying only 2,187,852 tons of a total of 19,808,201. Most of this freight was carried by vessels of the United Kingdom, United States, Panama, Norway and Sweden.

Commodities imported amounted to 36,961,181 tons, an advance of 30.5 p.c. over the 1949 total. This increase, mainly due to larger quantities of coal, petroleum and products, corn, iron ore, limestone and general merchandise, was fairly evenly distributed among the three geographical regions—Atlantic was up 34.2 p.c., Great Lakes 29.3 p.c., and Pacific 23.5 p.c.

Increases in exports of flour, corn, gypsum, other ores, lumber, newsprint and fish were reported in 1950, but decreases in wheat, oats, rye, iron ore and logs offset the increases making a total of 21,227,930 tons compared with 22,441,732 tons in 1949. Most of the decline occurred in the Atlantic region.

The gross investment in vessels, docks, wharves, warehouses, land, and buildings and equipment reported by the water transportation industry in 1949 amounted to \$256,100,000. Gross income received from this investment was \$213,800,000. The industry employed 20,520 workers and paid out \$42,000,000 in salaries and wages, an average of \$2,047 which did not include the value of meals and lodging estimated at \$5,000,000.

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*Freighters passing through the Cornwall Canal. During 1950, 27,439,076 tons of freight passed through Canadian canals.*



## Harbours

Eight of the principal harbours—Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Churchill and Vancouver—are administered by the National Harbours Board. Seven other harbours are administered by commissions that include municipal as well as federal appointees. In addition, there are about 300 public harbours all of which come under the supervision of the Department of Transport.

Facilities provided to enable interchange movements include the necessary docks and wharves, warehouses, special equipment for handling bulk freight, harbour railways, grain elevators, coalbunkers and oil-storage tanks and, in some cases, dry-dock accommodation.

The freight loaded and unloaded at a larger port from sea-going vessels frequently constitutes a surprisingly small part of the total freight handled. Usually the volume coming in or going out by coasting vessels is larger. It is not possible to obtain statistics of freight handled in all ports and harbours, but the water-borne cargo loaded and unloaded at the six principal ports in 1950 was as follows:—

|                   | <i>Inward</i> | <i>Outward</i> |
|-------------------|---------------|----------------|
|                   | tons          | tons           |
| Montreal.....     | 8,579,034     | 6,736,499      |
| Vancouver.....    | 6,090,660     | 3,966,293      |
| Halifax.....      | 2,251,211     | 1,472,950      |
| Saint John.....   | 1,049,073     | 1,022,227      |
| Three Rivers..... | 2,209,472     | 566,742        |
| Quebec.....       | 1,831,822     | 429,458        |

Operating revenues and expenditures of these six harbours in 1950 amounted to \$12,340,164 and \$7,385,024, respectively.

## Canals

There are six canal systems in Canada: (1) between Fort William and Montreal, (2) from Montreal to the International Boundary via the Richelieu near Lake Champlain, (3) from Montreal to Ottawa, (4) from Ottawa to Kingston, (5) from Trenton to Lake Huron, and (6) from the Atlantic Ocean to the Bras d'Or Lakes in Cape Breton. These canals open to navigation from the Atlantic about 2,000 miles of waterways.

The St. Lawrence River, improved by a system of canals above Montreal, and the Great Lakes, with their connecting rivers and canals, form one of the busiest waterways in the world. The canals constructed between Montreal and Lake Superior include the Lachine, Soulanges, Cornwall, Farran's Point, Rapide Plat, Gallops, Welland Ship and Sault Ste. Marie. Their aggregate length is 75.92 miles. The 31 locks on these canals overcome a rise in level of 554 feet. The canals on the St. Lawrence have a navigable depth of up to 14 feet but between the lakes the navigable depth is 25 feet, permitting the passage of large lake freighters from the Upper Lakes to Prescott on the St. Lawrence. Plans are under way for deepening the St. Lawrence channel to permit these freighters passage to the Atlantic and to allow large sea-going vessels to ply the Great Lakes.

In 1950 the tonnage of traffic moving to and from Lake Superior ports and Montreal and beyond was 542,803. Traffic using the St. Lawrence system only amounted to 5,275,330 tons. Vessels moving between Lake Ontario and Lake



Superior carried 2,909,167 tons. Of the 27,439,076 tons of freight passing through Canadian canals only during 1950, 89 p.c. was transported in Canadian vessels. For the Welland Ship Canal, the percentage was 83 and for the St. Lawrence canals, 97. Domestic vessels carried all freight passing through smaller canals.

Preliminary figures for the 1951 navigation season show that total tonnage of freight moving through Canadian canals amounted to 29,099,623 tons, an increase of 6 p.c. over 1950.

## Civil Aviation

The control of civil aviation in Canada is under the jurisdiction of the Federal Government. The Department of Transport deals with the technical side which includes matters of registration of aircraft, licensing of airmen, establishment and maintenance of airports and facilities for air navigation, air-traffic control, accident investigation and the safe operation of aircraft. Certain statutory functions with respect to the issue of licences to operate commercial air services and the subsequent economic regulation of commercial air services in accordance with the dictates of the public interest are assigned to the Air Transport Board.

Air transport services are grouped into two broad classes: (1) Scheduled Services, providing regular point-to-point services and (2) Non-Scheduled Services which include services not on regular time schedules, chartered and contract services, and specialty services such as forestry or other surveys.

**Trans-Canada Air Lines.**—Incorporated in 1937, TCA in the year ended Mar. 31, 1951, operated 16,883 miles of routes, flying to 44 communities in Canada, the United States, the British Isles, Bermuda and the West Indies. Increased flight frequency on existing routes rather than geographical expansion marked the service development during the year. However, the Montreal-New York service was extended into a triangular route with the existing Toronto service; and Tampa, Florida, was added as a traffic stop on the Montreal-Bahamas-Jamaica route.



The control tower  
is the nerve centre  
of the airport.



In the domestic service, 838,271 revenue passengers, 3,682,812 ton-miles of mail and 3,876,670 ton-miles of commodity traffic were carried in 1950-51 as compared with 716,490 passengers, 3,501,305 ton-miles of mail and 2,645,955 ton-miles of commodity traffic in the previous fiscal year. A third transcontinental service between Montreal and Vancouver, which is routed through Edmonton and Saskatoon, went into operation during the year.

Overseas flights during 1950-51 accommodated 40,452 passengers, 409,998 ton-miles of mail and 1,689,189 ton-miles of commodity transport, compared with 35,344 passengers, 401,680 ton-miles of mail and 1,567,296 ton-miles of commodity transport in 1949-50.

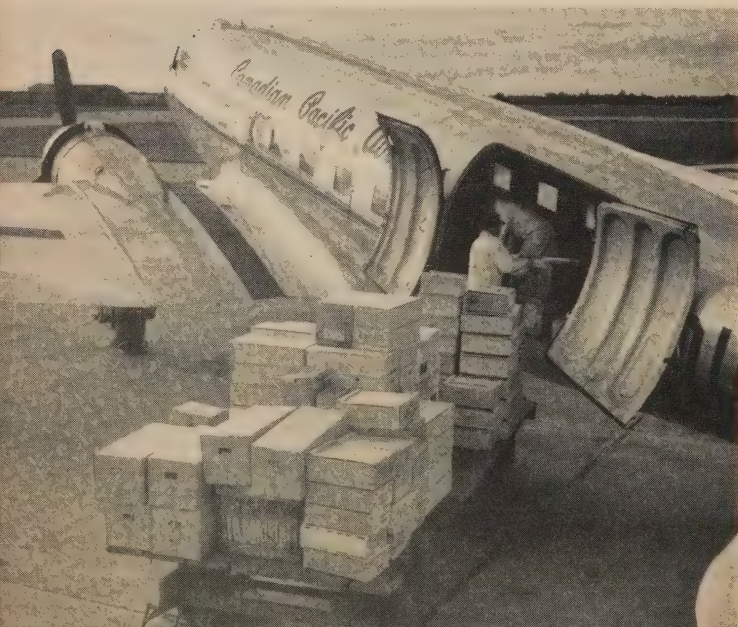
Flight equipment at the end of 1950 included 20 four-engined North Stars and 27 twin-engined DC-3's.

**Canadian Pacific Air Lines.**—Canadian Pacific Air Lines operate a wide-spread group of north-south schedules across Canada with routes, as at the end of March 1951, covering a distance of 10,115 miles. Two new routes were inaugurated during the year: a thrice-weekly service from Edmonton to Dawson Creek via Peace River and Grande Prairie, and a daily service from Edmonton to Regina via Lloydminster.

Domestic C.P.A. operations during the year ended Mar. 31, 1951, with the preceding year's figures in brackets were: 4,753,788 (4,357,629) revenue miles, 53,544,691 (47,253,401) passenger-miles, 1,072,892 (1,069,149) cargo ton-miles and 399,751 (393,584) mail ton-miles were flown and 152,379 (130,261) revenue passengers were carried.

Since December 1950, C.P.A. operated four flights a week to Tokyo, on charter to the Federal Government, as part of the Korean airlift. One of the weekly flights continued from Tokyo to Hong Kong as the Company's regular weekly flight. The fortnightly service from Vancouver to Australia via Honolulu and Fiji was continued.

On the international south-Pacific service, figures for the year ended Mar. 31, 1951, with those for the eight months of operation ended Mar. 31, 1950, in brackets were: 426,647 (322,551) revenue miles, 8,748,405 (4,614,598)



Loading fruit, vegetables and eggs aboard a Canadian Pacific Airlines DC-3 at Edmonton, Alta., for Yellowknife, N.W.T. It is in this area that the C.P.A. does 75 p.c. of its freight business.



*A Trans-Canada Air Lines 40-passenger North Star stands at the loading ramp at Dorval Airport, Montreal, the international gateway to Canada's air transportation system. This airport is a bustling community of 3,000 persons handling 150 flights a day and an average of 1,000 passengers.*

revenue passenger miles, 6,122 (1,801) cargo ton-miles and 4,353 (3,422) mail ton-miles were flown and 1,592 (819) revenue passengers were carried.

On the international north-Pacific service, figures for the year ended Mar. 31, 1951, with those for the six months of operation ended Mar. 31, 1950, in brackets were: 1,307,609 (383,246) revenue miles, 25,365,224 (4,937,378) passenger-miles, 107,385 (34,152) cargo ton-miles, and 39,559 (17,642) mail ton-miles were flown and 4,825 (873) revenue passengers carried.

**Independent Air Lines.**—In addition to Trans-Canada Air Lines and Canadian Pacific Air Lines, there are eight domestic air lines licensed to operate scheduled services. The majority of the independent lines, however, operate non-scheduled services, which are mainly charter services from designated bases. It is in this field that the greatest development has taken place in recent years. Non-scheduled charter services and non-scheduled specific-point services provide effective means of access to sections of Canada that are inaccessible by other means of transportation and also act as feeders to the scheduled air lines.

**International Agreements.**—Canada's position in the field of aviation as well as its geographical location makes imperative its co-operation with other





*Quick and efficient air service has eliminated the weariness and drudgery usually associated with family travel.*

nations of the world engaged in international civil aviation. Canada played a major part in the original discussions that led to the establishment of the International Civil Aviation Organization now with permanent headquarters at Montreal. Canada has actively participated in the deliberations of ICAO and its many committees, and as a result has secured the benefits of the joint knowledge and experience of all member States in the technical and economic aspects of all phases of civil aviation.

In recent years Canada has been a signatory to agreements concerning civil aviation with Australia, Ireland, Netherlands, Portugal, Sweden, United Kingdom, United States and, prior to union, with Newfoundland. After the entry of Newfoundland into Confederation, new bi-lateral air agreements were signed between Canada and the United States, the United Kingdom, Belgium and France. On the North Atlantic, Canada was given extended rights for traffic from Ireland, Iceland and the Azores, and also rights in Brussels by the Belgian Government and landing rights in France by the French Government.

On the Caribbean route, rights have been obtained in Florida from the United States and for points of call in British territories. In the Pacific, agreements provide for calls at Honolulu, Fiji and Hong Kong. In the trans-border field, TCA has the right to operate from Montreal to New York and from Montreal and Toronto to the Bahamas and Jamaica with stops at Tampa or St. Petersburg, Florida. Operating certificates have been issued to fourteen Commonwealth and foreign scheduled services flying into Canada.

## **Telegraphs**

Six telegraph systems are operated in Canada, four in conjunction with the railways, one by the Federal Government and one small system that is owned and operated independently. One United States company uses lines across Canadian territory; one private Canadian company operates a wireless system; and four cable companies, in addition to the telegraph companies, operate cables from Canadian stations. In all, there are 45 cables between



Canada (including Newfoundland) and the United States, England, Ireland, the Azores, Australia, New Zealand, St. Pierre and Miquelon, and Bermuda. Two cables link North Sydney and Canso, N.S., three cables North Sydney and Newfoundland, and three cables Canso, N.S., and Newfoundland.

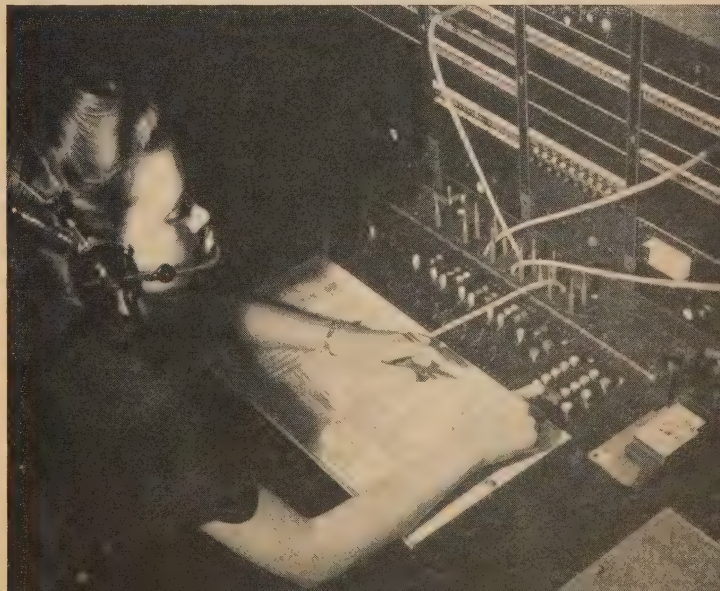
These systems have 409,820 miles of telegraph wire in Canada, 5,123 miles outside of Canada, and 62,877 nautical miles of submarine cable between Canada and other countries. Multiple circuits normally produce 1,218,032 miles of channels for telegraphic use. During 1950 a total of 20,477,775 telegrams and 1,687,721 cablegrams, excluding messages between foreign countries, were handled by these systems.

## Telephones

At the end of 1950, Canada had 2,917,092 telephones or 21 per 100 population. The estimated number of telephone calls on all systems in Canada reached a peak of 5,012,610,978 in 1950, representing an average of 1,718 calls per telephone or 366 calls per head of population. Long-distance calls, too, attained a new record at 117,891,978, and calls to other countries were generally higher. Canadians are currently within telephone reach of 87 countries and connections are possible with nearly 96 p.c. of all telephones in the world.

Of the 2,912 telephone systems operating in 1950, no fewer than 2,245 were co-operatively owned systems serving rural lines in rural districts of Saskatchewan, Alberta, Nova Scotia and Ontario. The largest of the 456 stock companies were the Bell Telephone Company and the British Columbia Telephone Company; the former, with its subsidiaries, operating in Ontario, Quebec, and New Brunswick reported 63 p.c. of all telephones in Canada. The provincial systems of the Prairie Provinces reported 10 p.c. of the total. Provincial and federal systems serve outlying districts where no commercial service is available.

Since the end of the War, the operations of the telephone companies have grown impressively and this progress has been paralleled by some remarkable technical advances. The adaptation of the principles of radio transmission,



A long-distance operator using a system of keys to dial direct to a subscriber in a distant city without contacting operators in intermediate cities.



*Mobile telephone service is available in Montreal and a wide area of southern Ontario and is used mainly by building contractors, public works departments—particularly for snow clearance control—oil and coal merchants, cleaners for pick-up service, and taxis. A similar system is used in British Columbia for coast-to-ship communication.*

introduced in 1928, has been extended so that to-day the standard carrier systems transmit 16 separate conversations on open wire and 12 on cable. Special equipment is being installed to permit the use of cable carrier for distances of 20 to 200 miles; previously it had been used only on longer routes.

Carrier has added greatly to the capacity of the country's long-distance network, and nine out of ten long-distance calls are now put through while the caller holds the receiver. Expansion is also taking place in operator toll-dialing, whereby a long-distance operator in one city may dial the actual number required in another city belonging to the same inter-toll dialing group, instead of passing the call to an operator.

There have been advances also in radio-telephony. Mobile telephone service is now provided in several Canadian cities and a number of microwave units have been set up since the War. These are useful as substitute submarine cable over short distances—between Prince Edward Island and the mainland, for example, and across the St. Lawrence at Quebec City. Canada possesses an intricate, efficient telephone network which permits the average Canadian to make more use of telephone service than the citizen of most other countries in the world.

Capital investment in telephone systems amounted to \$806,826,198 in 1950 and employees, numbering 45,396, received \$102,093,078 in salaries and wages.

## **Radio**

At Sept. 1, 1951, there were operating in Canada 156 standard broadcast band stations, of which 19 were Canadian Broadcasting Corporation stations and 137 privately owned stations; also 36 short-wave stations, of which 28 were Canadian Broadcasting Corporation stations and eight privately owned stations. Private receiving licences obtained during the fiscal year ended Mar. 31, 1951, numbered 2,212,435, many of them covering more than one set.

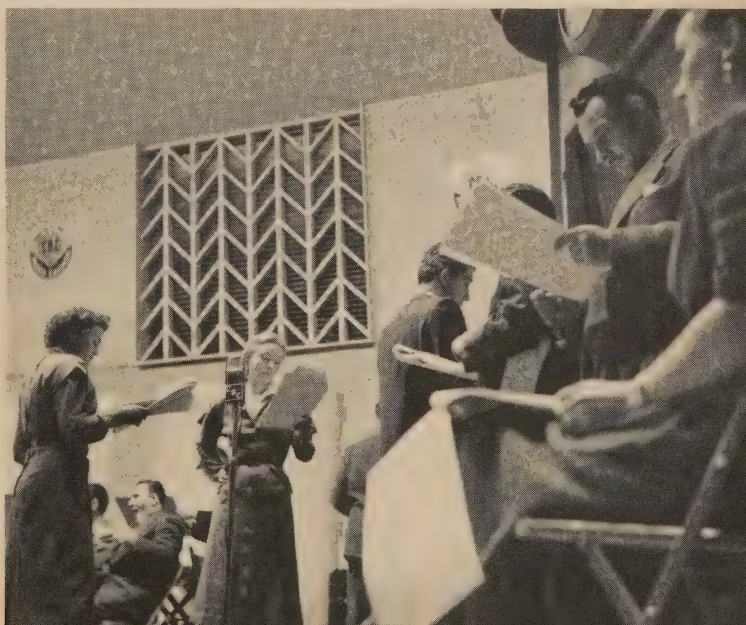


**Canadian Broadcasting Corporation.**—The publicly owned Canadian Broadcasting Corporation is operated as a national public service; privately owned stations provide local community service, and many are affiliated with the CBC networks. As constituted under the Broadcasting Act, the CBC is responsible to Parliament through a Minister of the Crown. From time to time the work of the CBC is reviewed by a special committee of the House of Commons, and in 1951 its constitution and operations were the subject of a report by the Royal Commission on National Development in the Arts, Letters and Sciences.

The majority report of this Commission recommended that the CBC continue to have direction and control over radio broadcasting in Canada, and that it have the same control over television. The Commission recommended also a new financial basis for the national radio system, by which its total annual income would be set by statute for five years. This income would be found from the \$2.50 listener licence fee, commercial and miscellaneous income, and a grant of public money sufficient to make up the statutory income. It was also recommended that the capital costs of the national television broadcasting system be met by parliamentary grants; while program and operating costs would be met by a licence fee on television receivers, commercial and miscellaneous income, and "by such statutory grants as may be necessary". Recommendations of the Commission were to be considered by Parliament.

CBC policy is determined by a Board of nine Governors (the Royal Commission recommended that it be enlarged) who act as trustees of the national interest in broadcasting. The Governors, representing the main geographic divisions of Canada and various facets of Canadian life, are appointed by the Governor General in Council for three-year terms. The position of Chairman is a full-time one. Day-to-day operations and administration of the system are the responsibility of a General Manager and an Assistant General Manager. The bulk of the CBC's income is derived at present from the \$2.50 licence fee on receiving sets; less than 22 p.c. of the total hours of network broadcasting are devoted to commercial programs.

Scene from a "Stage '52" production being rehearsed for a Sunday night broadcast.





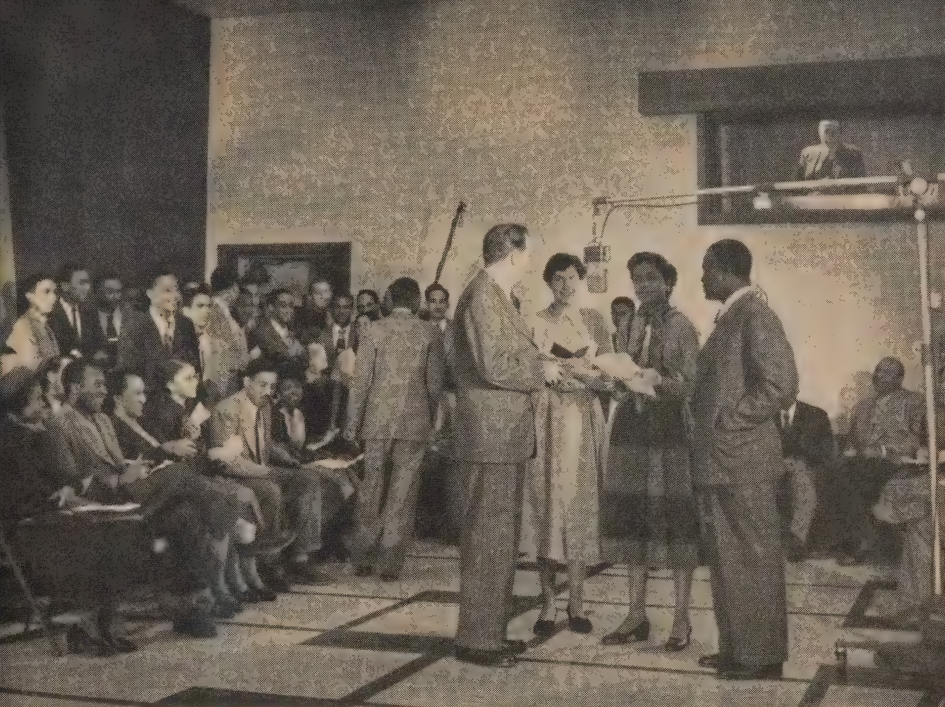
*Radio Broadcasting Facilities and Program Service.*—The CBC operates 57 transmitters for its National Service and two for the International Service. Twenty are standard band AM stations, and eight of these are of 50,000 watts, to give good service to rural areas; five are frequency modulation transmitters; four are short-wave transmitters (used on 11 frequencies) to reach remote areas; 28 are low-power "repeater" transmitters operating automatically with the network lines and serving sparsely settled areas. CBC network radio service reaches more than 95 p.c. of the radio homes in Canada. Program service extends from St. John's, Newfoundland, on the east, to Vancouver Island on the west. The Trans-Canada and Dominion networks serve English-speaking listeners from sea to sea, and the French network serves the Province of Quebec (short-wave stations reach French-speaking listeners in northern Quebec and on the western prairies). Eighty-five of the 137 privately owned stations are affiliated with the CBC networks.

Canada's system of broadcasting is designed to overcome the problems posed by great distances, a scattered population, two official languages and seven of the world's 24 time zones. Programs are planned regionally as well as nationally on CBC networks not only to provide as complete a service as possible during the broadcasting hours of each region but also to fulfill the regional needs and tastes of the listening public in various parts of the country. National programs are planned with a view to uniting the cultural tastes and interests of Canadians and to provide good radio entertainment from each of the main program production centres.

Through CBC facilities, schools across Canada are provided with at least 30 minutes daily of broadcast programs specifically planned by departments of education to meet classroom requirements. In addition, national school broadcasts, prepared with the advice of the departments of education and teachers and financed by the CBC, are heard Fridays. Canada's agricultural population is served by the most complete service of farm broadcasts in the world, including the weekly National Farm Radio Forum. A comparable program, Citizens' Forum, provides a national platform for discussion of topics of current interest. Programs of interest to women are scheduled



*The Captain of a Swedish freighter in Montreal harbour is interviewed for a CBC actuality broadcast on the International Service.*



*Recording a courtesy broadcast to the West Indies from Montreal.*

for afternoon listening; there are special children's programs for out-of-school listening; and time is allotted regularly for religious programs. Free-time political broadcasts arranged with the parties concerned are heard both nationally and regionally. For listeners with discriminating tastes in programs, the special CBC Wednesday Night program offers a full evening of drama, music, talks, poetry, recitals and performances by such groups as the CBC Opera Company.

*Television.*—Shortages of materials have delayed completion of CBC television centres being built at Montreal and Toronto, and the first television broadcasts will not be on the air until sometime in 1952. Channels 2 and 5 have been assigned to the CBC at Montreal, where the Corporation ultimately will operate two stations (English and French), and Channel 9 at Toronto, where one station will be operated. The Montreal television studios are housed in an addition to the Radio Canada Building and the transmitter is being erected on top of Mount Royal in the heart of the city. The transmitter for Toronto will be incorporated with the studio building at the Toronto location, with a 500-foot tower adjacent to it. A contract has been let for the provision of micro-wave relay links between Buffalo, U.S.A., and Toronto, and Toronto and Montreal.

*CBC International Service.*—The International Service is operated by the Canadian Broadcasting Corporation on behalf of the Government of Canada. Its finances are provided wholly by a parliamentary appropriation:



it uses none of the revenue of the CBC designated for its service to Canadian listeners. The policies of the International Service are formulated through consultation with the Department of External Affairs and with an Advisory Committee on which are represented the Department of External Affairs, the Department of Trade and Commerce, the Privy Council, the National Film Board and the CBC.

Since its inception in February 1945, the CBC International Service has so expanded that its programs are now heard abroad in fourteen languages. The latest language to be added, in February 1951, was Russian; the "Voice of Canada" Russian-language programs are timed to coincide with those of the British Broadcasting Corporation and the "Voice of America". The CBC's short-wave transmitters at Sackville, N.B., send out the strongest signal to be heard in Europe from North America.

A monthly program schedule designed to provide factual information about Canada is distributed free to listeners upon request. Two editions are currently published—one for Europe and one for Latin America and the Caribbean. Their combined circulation has passed the 100,000 mark.

In addition to broadcasting Canadian programs an average of approximately fourteen hours daily, an increasing number of programs are relayed over national networks in foreign countries. An important function of "Radio Canada" has been the coverage of United Nations activities by means of reports and interviews by the CBC correspondent at New York and foreign-language correspondents. The CBC International Service also places its transmitters at the disposal of the United Nations Radio Division for the broadcasting of its official reports and commentaries to Europe and to the South Pacific.

## **Postal Service**

Postal service in Canada is provided from Newfoundland to the west coast of Vancouver Island, and from Pelee Island, Ont. (the most southerly point of Canada) to settlements and missions far within the Arctic.

Various facilities are used in the transporting of mails—railways, aircraft, motor-vehicles and inland and coastal steamers—but the principal means is the railway mail service which operates on about 40,000 miles of track and covers an annual track mileage exceeding 47,000,000. There are about 1,370 railway mail clerks employed in sorting and exchanging mails while *en route* in postal railway cars and in steamers serving the coastal settlements of Newfoundland. The far northerly points receive mail by steamer, air-stage service and aircraft courtesy flights.

Canada's air-mail system provides several flights daily and constitutes a great air artery from St. John's, Newfoundland, to Victoria, B.C., intersected with branch and connecting lines radiating to every section of the country and linking up with the United States air-mail system. All first-class domestic mail up to and including one ounce in weight is carried by air between one Canadian point and another, whenever delivery is thus facilitated. There are, altogether, approximately 23,000 miles of air-mail and air-stage routes in Canada.

Post offices are established for the transaction of all kinds of postal business at places where the population warrants, and letter-carrier delivery is



given in 124 cities and towns. An extensive organization distributes mail to rural districts: 5,172 rural mail routes are in operation covering 119,326 miles of road and serving 384,906 rural mail boxes, and the majority of these receive daily service. Rural mail routes are generally circular in pattern and average 23 miles in length. Some 4,750 side services are in operation to transport mail between post offices, railway stations, steamer wharves and airports, while 3,100 stage services operate to service post offices not situated on railway lines. In cities and larger towns there are approximately 500 services conveying mails to and from sub post offices, postal stations, and railway stations, collecting mails from street letter boxes and delivering parcel post. In all, approximately 13,500 land mail service couriers travel in the neighbourhood of 50,000,000 miles annually. Land mail services are performed under a contract system. Contracts are awarded to the lowest tenderer who must provide all the requisite equipment.

An estimated 3,000,000,000 items of mail are delivered annually, requiring the utilization of the most up-to-date mechanical handling devices. There were, in all, 12,390 post offices and 11,387 money-order offices in operation across the country on Mar. 31, 1951. For the year ended on that date, postage paid by means of postage stamps amounted to \$57,178,573 and the gross postal revenue was \$105,545,456. Post Office Savings Banks in operation in all parts of the country had combined deposits of \$37,661,920.

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*Sorting mail on a railway mail car.*





*The queen of Canadian carriers on the Great Lakes, the "Scott Misener", carrying, on her maiden voyage, 618,000 bu. of prairie wheat from Fort William to Port Colborne elevators, the largest wheat cargo ever carried by a single ship anywhere in the world.*

# Domestic Trade

**G**REAT economic effort is expended in transforming Canada's varied resources into products ready for consumption and in distributing these products as well as imported goods to a widely dispersed population of over 14,000,000.

Domestic trade embraces a wide range of activities. It includes not only the transportation and distribution of material goods but also medical attention, entertainment, education, and many household and personal services required in the every-day round of living. All means of transportation—rail, air, water and road—are employed, together with all types of wholesale and retail establishments, and warehousing facilities ranging in size from the great grain elevators of the Canadian West to small storage plants.

## Merchandising and Service Establishments

Between the Canadian manufacturer or importer and the Canadian consumer there exists a great and complicated distributive system. Its function is to channel a diversity of products most effectively and economically to the Canadian market. Closely allied with this field is a wide range of services upon which Canadians rely to meet their needs for recreation, personal services, repairs, etc.

Annual and monthly sales estimates are developed from sample surveys. The latest estimate places the retail trade of Canada at \$10,650,700,000 in 1951, a gain of 13 p.c. over the 1950 total of \$9,467,400,000. Estimates for a few of the retail trades, together with provincial totals, are given in the following tables.

### Retail Store Sales for Selected Types of Business, 1941, 1950 and 1951

(Exclusive of Yukon, the Northwest Territories and Newfoundland)

| Type of Business                  | Sales          |                |                   | Percentage Change— |               |
|-----------------------------------|----------------|----------------|-------------------|--------------------|---------------|
|                                   | 1941           | 1950           | 1951 <sup>a</sup> | 1950-51            | 1941-51       |
|                                   | \$'000'000     | \$'000'000     | \$'000'000        |                    |               |
| Grocery and combination stores    | 567.3          | 1,450.6        | 1,671.0           | +15.2              | +194.6        |
| Department stores.....            | 377.8          | 872.4          | 930.9             | + 6.7              | +146.4        |
| Motor-vehicle dealers.....        | 360.2          | 1,553.7        | 1,951.4           | +25.6              | +441.8        |
| Country general stores.....       | 213.3          | 474.4          | 536.1             | +13.0              | +151.3        |
| Garages and filling stations..... | 205.1          | 498.0          | 545.8             | + 9.6              | +166.1        |
| Family clothing stores.....       | 73.8           | 160.5          | 173.5             | + 8.1              | +135.1        |
| All other trades.....             | 1,639.4        | 4,457.8        | 4,842.0           | + 8.6              | +195.4        |
| <b>Totals.....</b>                | <b>3,436.9</b> | <b>9,467.4</b> | <b>10,650.7</b>   | <b>+12.5</b>       | <b>+209.9</b> |



## Retail Store Sales, by Provinces, 1941, 1950 and 1951

| Province                              | Sales          |                |                   | Percentage Change— |               |
|---------------------------------------|----------------|----------------|-------------------|--------------------|---------------|
|                                       | 1941           | 1950           | 1951 <sup>p</sup> | 1950-51            | 1941-51       |
|                                       | \$'000'000     | \$'000'000     | \$'000'000        |                    |               |
| Maritime Provinces <sup>1</sup> ..... | 282.8          | 654.5          | 709.5             | + 8.4              | +150.9        |
| Quebec.....                           | 818.7          | 2,205.2        | 2,494.1           | +13.1              | +204.6        |
| Ontario.....                          | 1,407.0        | 3,643.9        | 4,157.7           | +14.1              | +195.5        |
| Manitoba.....                         | 210.8          | 606.2          | 698.9             | +15.3              | +231.5        |
| Saskatchewan.....                     | 186.9          | 548.9          | 578.2             | +11.3              | +209.4        |
| Alberta.....                          | 221.1          | 747.7          | 849.4             | +13.6              | +284.2        |
| British Columbia.....                 | 309.6          | 1,061.0        | 1,162.9           | + 9.6              | +275.6        |
| <b>Totals.....</b>                    | <b>3,436.9</b> | <b>9,467.4</b> | <b>10,650.7</b>   | <b>+12.5</b>       | <b>+209.9</b> |

<sup>1</sup> Exclusive of Newfoundland.

The third Decennial Census of Distribution is now in progress for 1951. Every wholesale, retail and service or repair establishment in Canada has been covered by a field force of 18,000 enumerators. During 1952 each of these businesses will be asked to supply details regarding 1951 business activities, which will give a consolidated picture of the Canadian market and the trades that service it. Results of the 1951 Census should be known early in 1953.

In recent years, and especially from 1948 through 1951, the sales of motor-vehicles and household durable goods—furniture, radios and appliances—have shown much greater increases than have the non-durable merchandise items—food and clothing. If price increases were taken into account it would likely be found that consumer purchases of food and clothing, in quantity terms, have been decreasing, though the level of trading in these goods remains relatively high. Activity in housing construction has kept up the demand for household goods.

The following table shows the sales of new passenger cars from 1949 to 1951 and the number of new cars purchased on the instalment plan through finance companies. The peak was reached in 1950 for both number sold and percentage financed.

### New Passenger-Car Sales and Financing, 1949, 1950 and 1951

| Province                       | 1949           |               |                  | 1950           |               |                  | 1951 <sup>p</sup> |               |                  |
|--------------------------------|----------------|---------------|------------------|----------------|---------------|------------------|-------------------|---------------|------------------|
|                                | Sold           |               | Financed<br>p.c. | Sold           |               | Financed<br>p.c. | Sold              |               | Financed<br>p.c. |
|                                | No.            | No.           |                  | No.            | No.           |                  | No.               | No.           |                  |
| Maritimes <sup>1</sup> .....   | 15,850         | 5,086         | 32.1             | 25,767         | 8,896         | 34.5             | 20,072            | 5,960         | 29.7             |
| Quebec.....                    | 36,782         | 12,387        | 33.7             | 57,643         | 20,365        | 35.3             | 56,490            | 18,614        | 33.0             |
| Ontario.....                   | 90,272         | 22,313        | 24.7             | 142,972        | 38,047        | 26.6             | 128,961           | 32,188        | 25.0             |
| Manitoba.....                  | 11,081         | 2,190         | 19.8             | 16,921         | 4,889         | 28.9             | 17,327            | 4,713         | 27.2             |
| Saskatchewan.....              | 13,081         | 2,326         | 17.8             | 19,184         | 5,405         | 28.2             | 18,033            | 5,648         | 31.3             |
| Alberta.....                   | 14,994         | 3,977         | 26.5             | 25,908         | 8,630         | 33.3             | 23,602            | 8,906         | 37.7             |
| British Columbia..             | 20,258         | 4,906         | 24.2             | 36,508         | 10,819        | 29.6             | 26,395            | 7,281         | 27.6             |
| <b>Totals<sup>1</sup>.....</b> | <b>202,318</b> | <b>53,185</b> | <b>26.3</b>      | <b>324,903</b> | <b>97,051</b> | <b>29.9</b>      | <b>290,880</b>    | <b>83,310</b> | <b>28.6</b>      |

<sup>1</sup> Newfoundland included in 1951.

**Chain Stores.**—Chain store sales in 1950 amounted to \$1,559,693,000, a gain of 10 p.c. over 1949. Although the number of chain stores increased as well as the value of their sales, the percentage of the total retail trade carried on in these establishments remained the same as in 1949 at 16 p.c. Firms considered as 'chains' are those operating four or more stores under the same ownership with the exception of department stores which are classified as independents regardless of the number of stores operated.

### Chain Store Statistics, 1930 and 1941-50

(Exclusive of Newfoundland)

| Year      | Stores  | Retail Sales | Salaries to Store Employees | Stocks on Hand, End of Year |           | Accounts Outstanding, End of Year |
|-----------|---------|--------------|-----------------------------|-----------------------------|-----------|-----------------------------------|
|           |         |              |                             | Store                       | Warehouse |                                   |
|           | Av. No. | \$'000       | \$'000                      | \$'000                      | \$'000    | \$'000                            |
| 1930..... | 8,097   | 487,336      | 50,405                      | 60,457                      | ..        | ..                                |
| 1941..... | 7,622   | 639,210      | 57,777                      | 68,619                      | 20,976    | 38,376                            |
| 1942..... | 7,010   | 687,447      | 57,654                      | 66,940                      | 22,633    | ..                                |
| 1943..... | 6,780   | 703,950      | 58,804                      | 67,628                      | 22,603    | 15,527                            |
| 1944..... | 6,560   | 769,643      | 63,300                      | 66,944                      | 21,855    | 15,093                            |
| 1945..... | 6,580   | 876,209      | 68,196                      | 68,247                      | 29,013    | 16,369                            |
| 1946..... | 6,559   | 1,014,847    | 77,474                      | 85,345                      | 37,436    | 19,643                            |
| 1947..... | 6,716   | 1,177,323    | 91,266                      | 105,041                     | 43,546    | 31,493                            |
| 1948..... | 6,821   | 1,335,735    | 107,450                     | 119,132                     | 46,330    | 40,378                            |
| 1949..... | 6,838   | 1,420,081    | 115,903                     | 123,696                     | 46,755    | 50,001                            |
| 1950..... | 7,155   | 1,559,693    | 129,334                     | 159,083                     | 60,501    | 65,001                            |

**Operating Results of Retail Stores.**—One of the Bureau of Statistics' most practical services to the retail merchant is the operating results series. This information is compiled for chain and independent stores in alternate years and shows gross profit, expenses, net profit, inventory ratios and other related information. The following table illustrates the general form and nature of the results but publications are available giving detailed information

Shopping in a modern grocer-ia. About 33 p.c. of the family ex-penditure in the lower income groups goes for food, the propor-tion declining as income rises.





The Fort Garry Hotel, Winnipeg, under whose shadow stands the gate of old Fort Garry, Hudson Bay trading post, which was the early focal point of the city.

and covering, in all, 20 trades in the retail independent-store field and 10 in the chain-store field. The results shown for independents are for unincorporated stores.

### Operating Results of Retail Independent and Chain Stores

(Exclusive of Yukon, the Northwest Territories and Newfoundland)

NOTE.—Items, except stock turnover, are expressed as percentages of net sales.

| Type of Business                                         | Gross Profit | Salaries and Wages <sup>1</sup> | Occupancy Expense | Total Expenses | Net Profit <sup>2</sup> | Stock Turn-over <sup>3</sup> |
|----------------------------------------------------------|--------------|---------------------------------|-------------------|----------------|-------------------------|------------------------------|
|                                                          | p.c.         | p.c.                            | p.c.              | p.c.           | p.c.                    |                              |
| <b>Independent Stores—</b><br>(Based on 1950 operations) |              |                                 |                   |                |                         |                              |
| Grocery and meat.....                                    | 14.9         | 5.3                             | 2.6               | 10.8           | 4.1                     | 13.9                         |
| Women's clothing.....                                    | 26.8         | 8.2                             | 5.9               | 19.1           | 7.7                     | 3.5                          |
| Family shoe.....                                         | 27.4         | 7.6                             | 5.4               | 16.8           | 10.6                    | 1.9                          |
| Hardware.....                                            | 25.8         | 7.4                             | 3.9               | 15.4           | 10.4                    | 2.4                          |
| Furniture.....                                           | 27.0         | 6.7                             | 4.9               | 18.3           | 8.7                     | 2.9                          |
| Filling station.....                                     | 18.7         | 6.8                             | 3.9               | 12.7           | 6.0                     | 22.2                         |
| Restaurant.....                                          | 38.7         | 19.1                            | 9.2               | 32.2           | 6.5                     | 22.5                         |
| Fuel.....                                                | 20.6         | 4.1                             | 2.1               | 15.5           | 5.1                     | 13.2                         |
| Drug.....                                                | 28.9         | 8.5                             | 4.6               | 17.0           | 11.9                    | 3.4                          |
| Jewellery.....                                           | 38.8         | 11.2                            | 6.9               | 24.8           | 14.0                    | 1.4                          |
| <b>Chain Stores—</b><br>(Based on 1949 operations)       |              |                                 |                   |                |                         |                              |
| Grocery and meat.....                                    | 15.6         | 8.2                             | 1.1               | 13.1           | 2.5                     | 17.4                         |
| Women's clothing.....                                    | 29.4         | 12.2                            | 4.8               | 25.3           | 4.1                     | 6.1                          |
| Shoe.....                                                | 30.8         | 14.8                            | 4.7               | 25.9           | 4.9                     | 2.4                          |
| Furniture.....                                           | 35.1         | 12.3                            | 4.8               | 31.1           | 4.0                     | 2.7                          |
| Drug.....                                                | 33.3         | 18.0                            | 4.6               | 30.3           | 3.0                     | 3.8                          |

<sup>1</sup> Independent store salaries do not include delivery service or proprietors' withdrawals. Chain store salaries include those paid to executives. <sup>2</sup> Independent store net profits are computed before deduction of proprietors' salaries or income tax. Chain store net profits are exclusive of executive salaries but include income tax. <sup>3</sup> Cost of goods divided by average of beginning and ending inventories.



**Retail Consumer Credit.**—Statistics on credit at the retail level have become of greater importance as changing conditions have necessitated more controls by the Government. As of Mar. 19, 1951, down payments on automobile sales were set at 50 p.c., and on other goods purchased on instalment plans at 33½ p.c. The length of time for repayment was also placed at 12 months instead of 18 months. On Jan. 14, 1952, this was again placed at 18 months.

Retail consumer credit statistics are shown in the following table in estimated dollar volume and cover total retail trade. During 1950 cash sales rose to \$6,884,000,000, a gain of 11 p.c. over 1949, instalment sales increased 40 p.c. and charge sales 8 p.c. Charge account sales showed the greatest rise (9 p.c.) during the first nine months of 1951 over the same period of 1950, while instalment sales increased 5 p.c. and cash sales 7 p.c. Outstanding balances from instalment sales were smaller at Sept. 30, 1951, than at the same date of 1950 but charge receivables were up to \$356,300,000 compared with \$331,200,000 at Sept. 30, 1950.

### *Retail Consumer Credit Statistics, 1941 and 1948-51*

(Exclusive of Yukon, the Northwest Territories and Newfoundland)

| Period                         | Sales during Period |            |         |             | Accounts Receivable at End of Period |        |       |
|--------------------------------|---------------------|------------|---------|-------------|--------------------------------------|--------|-------|
|                                | Cash                | Instalment | Charge  | Total Sales | Instalment                           | Charge | Total |
| Dollar Estimates (in millions) |                     |            |         |             |                                      |        |       |
| 1941, Totals.....              | 2,460.7             | 305.9      | 670.2   | 3,436.8     | 82.5                                 | 157.4  | 239.9 |
| 1948, Totals.....              | 5,877.2             | 411.9      | 1,550.2 | 7,839.3     | 111.6                                | 299.7  | 411.3 |
| 1949, Totals.....              | 6,192.2             | 515.0      | 1,720.7 | 8,427.9     | 139.8                                | 327.7  | 467.5 |
| 1950, Totals.....              | 6,884.0             | 720.3      | 1,863.1 | 9,467.4     | 169.5                                | 377.1  | 546.6 |
| 1950—Jan.-Mar.....             | 1,353.3             | 137.8      | 382.3   | 1,873.4     | 129.6                                | 291.4  | 421.0 |
| Apr.-June.....                 | 1,763.5             | 184.2      | 475.3   | 2,423.0     | 137.4                                | 313.2  | 450.6 |
| July-Sept.....                 | 1,838.8             | 195.7      | 497.9   | 2,532.4     | 144.5                                | 331.2  | 475.7 |
| Oct.-Dec.....                  | 1,928.4             | 202.6      | 507.6   | 2,638.6     | 169.5                                | 377.1  | 546.6 |
| 1951—Jan.-Mar.....             | 1,528.5             | 172.4      | 460.4   | 2,161.3     | 143.2                                | 348.7  | 491.9 |
| Apr.-June.....                 | 1,898.3             | 185.0      | 516.5   | 2,599.8     | 121.8                                | 356.5  | 478.3 |
| July-Sept.....                 | 1,855.9             | 184.3      | 503.1   | 2,543.3     | 104.3                                | 356.3  | 460.6 |
| Percentage Composition         |                     |            |         |             |                                      |        |       |
| 1941.....                      | 71.6                | 8.9        | 19.5    | 100.0       | 34.4                                 | 65.6   | 100.0 |
| 1948.....                      | 75.0                | 5.3        | 19.7    | 100.0       | 27.1                                 | 72.9   | 100.0 |
| 1949.....                      | 73.5                | 6.1        | 20.4    | 100.0       | 29.9                                 | 70.1   | 100.0 |
| 1950.....                      | 72.7                | 7.6        | 19.7    | 100.0       | 31.0                                 | 69.0   | 100.0 |
| 1950—Jan.-Mar.....             | 72.2                | 7.4        | 20.4    | 100.0       | 30.8                                 | 69.2   | 100.0 |
| Apr.-June.....                 | 72.8                | 7.6        | 19.6    | 100.0       | 30.5                                 | 69.5   | 100.0 |
| July-Sept.....                 | 72.6                | 7.7        | 19.7    | 100.0       | 31.0                                 | 69.0   | 100.0 |
| Oct.-Dec.....                  | 73.1                | 7.7        | 19.2    | 100.0       | 31.0                                 | 69.0   | 100.0 |
| 1951—Jan.-Mar.....             | 70.7                | 8.0        | 21.3    | 100.0       | 29.1                                 | 70.9   | 100.0 |
| Apr.-June.....                 | 73.0                | 7.1        | 19.9    | 100.0       | 25.5                                 | 74.5   | 100.0 |
| July-Sept.....                 | 73.0                | 7.2        | 19.8    | 100.0       | 22.6                                 | 77.4   | 100.0 |

**Wholesale Trade.**—Monthly index numbers of sales are calculated for nine wholesale trades, based on reports received from a sample of firms whose sales made up about 68 p.c. of the total volume of business done by wholesalers proper in those trades in 1941. The sample of reporting firms is limited to wholesalers proper, i.e., wholesale establishments that perform the complete functions of jobbers and wholesalers, buying merchandise in large quantities on their own account and selling in broken lots. In addition, the trades selected are those engaged principally in supplying retailers and include the

following: automotive supply and equipment, drugs, clothing, footwear, dry goods, fruits and vegetables, groceries, hardware, and tobacco and confectionery.

The dollar volume of wholesale sales in Canada, measured by the composite index of sales, was 6 p.c. higher in 1950 than in 1949. Automobile parts and equipment wholesalers reported an increase of 13 p.c., grocery wholesalers 8 p.c., and tobacco and confectionery wholesalers 8 p.c. Changes in the other trades ranged downward to a minor decrease for clothing wholesalers.

Results for the first ten months of 1951 show that automobile parts and equipment wholesalers continued to advance with an increase of 22 p.c. over sales in the same months of 1950. Footwear wholesalers also reported an increase of 22 p.c. All other trades showed increased dollar volume of sales in the first part of 1951 and the total sales of the nine trades was 11 p.c. higher than in 1950.

### *Annual Indexes of Wholesale Sales, by Types of Business, 1941 and 1945-51*

(1935-39 = 100)

(Exclusive of Yukon, the Northwest Territories and Newfoundland)

| Type of Business                    | 1941         | 1945         | 1946         | 1947         | 1948         | 1949         | 1950         | 1951 <sup>p</sup> | P.C.<br>Change<br>1950-51 |
|-------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------------|---------------------------|
| Automotive equipment..              | 157.8        | 242.8        | 334.0        | 369.8        | 379.9        | 397.6        | 429.2        | 521.9             | +21.6                     |
| Drugs.....                          | 145.2        | 222.1        | 245.2        | 254.6        | 281.8        | 305.5        | 313.8        | 354.3             | +12.9                     |
| Clothing.....                       | 142.8        | 186.3        | 229.3        | 255.4        | 265.1        | 248.2        | 248.0        | 259.9             | + 4.8                     |
| Footwear.....                       | 141.6        | 224.0        | 279.4        | 300.8        | 286.8        | 281.9        | 282.9        | 344.6             | +21.8                     |
| Dry goods.....                      | 141.8        | 161.9        | 197.5        | 244.5        | 264.7        | 240.4        | 246.0        | 262.5             | + 6.7                     |
| Fruits and vegetables..             | 131.2        | 262.4        | 291.2        | 274.7        | 237.2        | 263.0        | 271.6        | 281.6             | + 3.7                     |
| Groceries.....                      | 134.7        | 180.2        | 208.9        | 244.2        | 254.0        | 257.0        | 276.4        | 302.7             | + 9.5                     |
| Hardware.....                       | 165.2        | 212.0        | 277.4        | 325.0        | 359.7        | 374.9        | 404.5        | 480.5             | +18.8                     |
| Tobacco and confection-<br>ery..... | 150.6        | 258.1        | 296.9        | 317.1        | 354.8        | 372.8        | 381.1        | 408.2             | + 7.1                     |
| <b>Composite Index..</b>            | <b>142.0</b> | <b>205.4</b> | <b>244.0</b> | <b>272.0</b> | <b>283.2</b> | <b>291.3</b> | <b>307.2</b> | <b>341.0</b>      | <b>+11.0</b>              |

### **Co-operative Associations**

During the year ended July 31, 1950, the co-operative societies of Canada transacted their largest volume of business. The 2,951 associations which reported for the year recorded a membership of 1,337,889 and a volume of business amounting to \$1,039,837,258. Compared with 1949, the number of associations increased by 314, membership by 118,177 and business by \$38,000,000.

The most important development in the field of co-operative education and research during 1950-51 was the inclusion of full credit courses in the management and administration of co-operatives in the degree course in the School of Commerce, University of Saskatchewan. These courses began in September 1951, and cover marketing principles and problems, co-operation and co-operative marketing, the organization and law of co-operatives and special accounting problems of co-operatives. The marketing course covers wholesaling and retailing of primary products and manufactured goods, sales management and advertising. The course on co-operation covers the

history, development and philosophy of the co-operative movement with special reference to the experiences and problems of the prairie economy. A study of the problems involved in the commercial relationships between local co-operatives and the central wholesale in Ontario was undertaken in 1950 by the United Co-operatives of Ontario with the assistance of the Ontario Agricultural College.

Saskatchewan legislation concerning co-operative associations was completely revised by a new Act, which came into force on May 1, 1950. It is probably the most detailed and complete of any provincial statute dealing with co-operatives.

**Co-operative Marketing.**—The total value of farm products marketed co-operatively in Canada during the crop year ended July 31, 1950, amounted to \$803,638,962, an increase of \$20,345,737 over the previous year. It is estimated that co-operative marketing associations handled 35.2 p.c. of all farm produce marketed commercially in Canada compared with 32.9 p.c. reported in 1949. Percentages handled by co-operatives in other commodities during 1950 were: dairy products 27.9; live stock 18.7; poultry and eggs 15.3; wool 76.4; grains 60.6; and fruits and vegetables 35.8.

**Co-operative Purchasing.**—In Canada, co-operative purchasing constitutes a relatively small proportion of total co-operative business, though the proportion has increased from 5.7 p.c. in the early 1930's to over 20 p.c. in 1950. Sales of merchandise and supplies during 1950 were valued at \$206,082,408 compared with \$191,804,630 in 1949, an increase of 7.7 p.c.

**Co-operative Wholesaling.**—Eleven co-operative wholesales reported a total volume of business in 1950 amounting to \$128,455,066, of which \$74,000,000 was farm products marketed and \$54,000,000 was commodities sold to local co-operatives. Live stock and dairy products were the main items marketed and commodities sold consisted mostly of feed and fertilizer, petroleum, and groceries and other food products.

**Co-operative Services.**—Services, such as hospital and medical care, housing, transportation, restaurants, electricity, etc., are provided by

Wild-curing salmon at the Fishermen's Co-operative Association Packing Plant, Prince Rupert, B.C. Choice cuts of spring salmon are dipped in brine, rolled in salt and packed in barrels for shipment to the United States.





co-operatives in every province, the number reporting in 1950 being 352. Revenue reported during the year was \$7,800,000 and membership 147,966.

**Fishermen's Co-operatives.**—Nearly 17,000 Canadian fishermen sold \$13,800,000 worth of fish and fish products co-operatively in 1950. Fishermen's co-operatives were reported in every province except Alberta and Manitoba, although there are some new organizations of this type in those areas. Although the Atlantic Provinces and Quebec have a large number of fishermen's co-operatives, the seven associations on the Pacific coast conduct 50 p.c. of the total business.

**Credit Unions.**—At the end of the calendar year 1950 there were 2,883 credit unions chartered in Canada (excluding Newfoundland) whose 1,031,603 members had accumulated, in shares and deposits, \$311,186,955 comprising the total assets of all credit unions reporting. These co-operative credit societies made loans amounting to \$108,358,203 to their members during the year.

### Wholesale Prices

The general wholesale price index measures commodity price changes mainly at production and primary distribution levels. It includes over 500 price series, including price quotations ranging from those paid by primary producers for basic raw materials to prices paid by retailers for finished articles.\*

The upward movement in wholesale prices, which commenced with the sharp deterioration in the international situation in June 1950, moved the

\* Detailed information concerning the construction of this index is given in D.B.S. Reference Paper No. 24, *Wholesale Price Indexes 1913-1950*.



Local oil refineries have been built along the Edmonton-Superior pipe line. This one is at Brandon, leading centre in western Manitoba.

wholesale index to new peak levels in 1951. By July the index had risen to 244.2, an all-time high. The advance in prices was broad though the emphasis was largely on imported items and strategic war materials.

The index of Canadian farm product prices at terminal markets followed the trend of wholesale prices generally through the first seven months of 1951, rising from 243.3 in December 1950 to 277.1 in July. The sharp drop to 256.4 in August was a reflection of the lower initial payment price to producers for No. 1 Manitoba Northern wheat (f.o.b. Fort William or Vancouver) which was changed from \$1.85 to \$1.40 per bu. Animal products were also slightly easier in August due to lower prices for live stock although the index remained substantially above that prevailing at the end of 1950.

### *Monthly Index Numbers of General Wholesale Prices and Wholesale Prices of Canadian Farm Products, 1950 and 1951*

(1935-39=100)

| Year and Month | General Wholesale Prices | Canadian Farm Products | Year and Month          | General Wholesale Prices | Canadian Farm Products |
|----------------|--------------------------|------------------------|-------------------------|--------------------------|------------------------|
| <b>1939</b>    |                          |                        | November.....           | 222.4                    | 239.2                  |
| August.....    | 95.7                     | 84.3                   | December.....           | 225.2                    | 243.3                  |
| <b>1950</b>    |                          |                        | <b>1951<sup>a</sup></b> |                          |                        |
| January.....   | 199.0                    | 221.7                  | January.....            | 232.3                    | 251.0                  |
| February.....  | 200.0                    | 224.5                  | February.....           | 238.5                    | 262.5                  |
| March.....     | 201.5                    | 229.4                  | March.....              | 241.8                    | 273.0                  |
| April.....     | 202.5                    | 231.3                  | April.....              | 242.2                    | 265.4                  |
| May.....       | 204.7                    | 234.1                  | May.....                | 241.9                    | 265.3                  |
| June.....      | 209.2                    | 243.4                  | June.....               | 242.7                    | 272.6                  |
| July.....      | 212.0                    | 246.8                  | July.....               | 244.2                    | 277.1                  |
| August.....    | 215.7                    | 245.1                  | August.....             | 241.5                    | 256.4                  |
| September..... | 222.6                    | 243.7                  | September.....          | 240.1                    | 253.9                  |
| October.....   | 220.0                    | 237.3                  | October.....            | 239.6                    | 252.6                  |
|                |                          |                        | November.....           | 239.1                    | 258.4                  |
|                |                          |                        | December.....           | 237.6                    | 260.2                  |

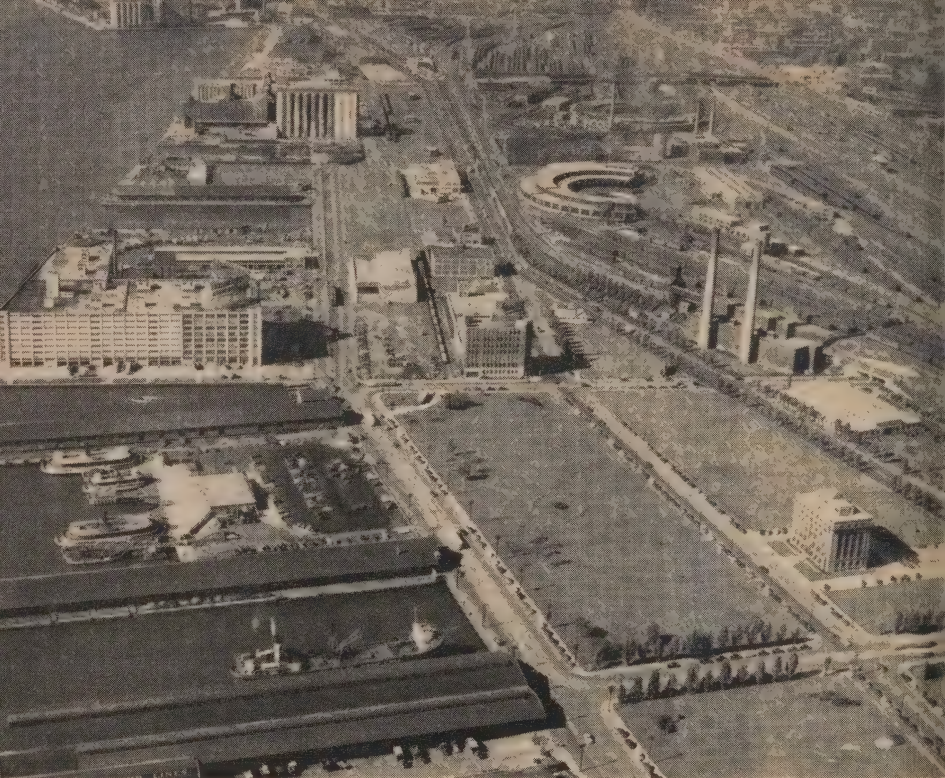
### *Cost of Living*

The Dominion Bureau of Statistics cost-of-living index measures the change in prices of goods and services purchased by representative Canadian urban wage-earner families. In terms of pre-war prices (1935-39=100), it records in percentage form the month-to-month changes in expenditure required to purchase a budget of goods and services based upon a 1938 study of actual expenditures of such families.

Price behaviour of consumer goods is of general interest and importance. Prices affect everyone in daily living and, along with income, determine to a large extent both the quantity and quality of the things that people buy. The cost-of-living index is, therefore, of considerable significance to many individuals and organizations. Labour and management both use it extensively in wage negotiations and government officials also watch it closely.

Construction methodology and the data used in compiling the index have received wide publicity and details of construction may be obtained from the Dominion Statistician, Ottawa. Basically, the index is compiled by multiplying constant quantities of goods and services (quantities purchased)





*The port and freightyards at Toronto serve the most industrialized and thickly populated area of Canada.*

by prices being charged to consumers on the first business day of each month. The resultant values for each budget item are added together and total dollar amounts divided by the average 1935-39 total. These figures are then multiplied by 100 to express them in index-number form. The following example, using only two commodities, illustrates the procedure:—

| <i>Item</i>  | <i>Budget<br/>Quantity<br/>(Weekly)</i> | <i>1935-39</i>           |                         | <i>January 1951</i>      |                         |
|--------------|-----------------------------------------|--------------------------|-------------------------|--------------------------|-------------------------|
|              |                                         | <i>Average<br/>Price</i> | <i>Average<br/>Cost</i> | <i>Average<br/>Price</i> | <i>Average<br/>Cost</i> |
|              | lb.                                     | cts.                     | cts.                    | cts.                     | cts.                    |
| Bread .....  | 12·1                                    | 6·5                      | 78·65                   | 11·3                     | 136·73                  |
|              | qt.                                     |                          |                         |                          |                         |
| Milk .....   | 10·5                                    | 10·9                     | 114·45                  | 19·0                     | 199·50                  |
| TOTALS ..... | ...                                     | ...                      | 193·10                  | ...                      | 336·23                  |

The January 1951 index for the above two commodities is therefore  $(336.23 \div 193.10) \times 100$  or 174.1.

The cost-of-living index continued upward in the first eight months of 1951 to reach a level of 188.9 for Aug. 1, compared with 171.1 for Dec. 1, 1950.



As in the previous year, prices for foods were mainly responsible for the index increase, accounting for more than 50 p.c. of the total change. At the commodity level, meats were substantially higher. Other groups, too, continued to rise, particularly clothing and home furnishings.

The Bureau of Statistics is currently working on a revision of the cost-of-living index. The weights to be used will conform to a post-war expenditure pattern based on a 1948-49 survey of approximately 3,100 representative urban families.

### *Index Numbers of Living Costs, 1939-51, and by Months, 1951*

(Av. 1935-39 = 100)

| Year and Month | Food  | Rent  | Fuel and Light | Clothing | Home Furnishings and Services | Miscellaneous | Total |
|----------------|-------|-------|----------------|----------|-------------------------------|---------------|-------|
| 1939.....      | 100.6 | 103.8 | 101.2          | 100.7    | 101.4                         | 101.4         | 101.5 |
| 1941.....      | 116.1 | 109.4 | 110.3          | 116.1    | 113.8                         | 105.1         | 111.7 |
| 1943.....      | 130.7 | 111.5 | 112.9          | 120.5    | 118.0                         | 108.0         | 118.4 |
| 1945.....      | 133.0 | 112.1 | 107.0          | 122.1    | 119.0                         | 109.4         | 119.5 |
| 1947.....      | 159.5 | 116.7 | 115.9          | 143.9    | 141.6                         | 117.0         | 135.5 |
| 1949.....      | 203.0 | 123.0 | 131.1          | 183.1    | 167.6                         | 128.8         | 160.8 |
| 1950.....      | 210.9 | 132.9 | 138.3          | 182.3    | 169.2                         | 132.6         | 166.5 |
| 1951.....      | 241.1 | 140.0 | 147.1          | 203.1    | 194.4                         | 141.3         | 184.5 |
| 1951—          |       |       |                |          |                               |               |       |
| January.....   | 220.2 | 136.4 | 141.5          | 187.1    | 179.8                         | 135.8         | 172.5 |
| February.....  | 224.4 | 136.4 | 141.7          | 192.4    | 185.1                         | 137.0         | 175.2 |
| March.....     | 233.9 | 137.6 | 146.5          | 196.3    | 188.6                         | 137.8         | 179.7 |
| April.....     | 238.4 | 137.6 | 146.7          | 198.8    | 190.7                         | 138.8         | 181.8 |
| May.....       | 235.4 | 137.6 | 146.2          | 201.5    | 194.9                         | 140.7         | 182.0 |
| June.....      | 239.8 | 139.8 | 146.2          | 202.5    | 197.1                         | 141.0         | 184.1 |
| July.....      | 249.7 | 139.8 | 147.2          | 202.9    | 197.4                         | 142.2         | 187.6 |
| August.....    | 251.4 | 139.8 | 148.2          | 204.6    | 199.0                         | 143.7         | 188.9 |
| September..... | 251.1 | 142.7 | 149.5          | 206.9    | 199.1                         | 144.0         | 189.8 |
| October.....   | 249.7 | 142.7 | 150.2          | 213.8    | 200.1                         | 144.3         | 190.4 |
| November.....  | 250.2 | 144.8 | 150.8          | 214.6    | 199.9                         | 144.9         | 191.2 |
| December.....  | 249.3 | 144.8 | 150.8          | 215.5    | 200.6                         | 144.9         | 191.1 |

A suburban shopping centre.





*Shipments of wheat flour from Canada totalled 988,144 tons in 1950, about one-quarter of which passed through the port of Montreal.*

# Foreign Trade

THE value of Canada's trade with other countries continued its post-war advance in 1950 and 1951. The value of total exports in 1950 set a new peacetime record of \$3,157,000,000, 1.5 p.c. above the previous high of 1948. Imports reached \$3,174,000,000, a much sharper gain of 15 p.c. over the 1949 record. The steady post-war increase in the level of international prices has played an important part in establishing these record values. The quantity of exports actually declined from 1948 to 1950, although the quantity of imports increased in both 1949 and 1950. In the first half of 1951 the increase in both the value and the quantity of imports was greatly accelerated, and the value and quantity of exports also moved upwards, though at a somewhat slower rate.

## Exports, Imports and Total Trade of Canada, 1938-51

(Millions of Dollars)

| Year                    | Exports          |                 |         | Imports | Total Trade | Balance of Trade |
|-------------------------|------------------|-----------------|---------|---------|-------------|------------------|
|                         | Domestic Produce | Foreign Produce | Total   |         |             |                  |
| 1938.....               | 837.6            | 11.1            | 848.7   | 677.5   | 1,526.1     | + 171.2          |
| 1939.....               | 924.9            | 11.0            | 935.9   | 751.1   | 1,687.0     | + 184.9          |
| 1940.....               | 1,179.0          | 14.3            | 1,193.2 | 1,082.0 | 2,275.2     | + 111.3          |
| 1945.....               | 3,218.3          | 49.1            | 3,267.4 | 1,585.8 | 4,853.2     | +1,681.6         |
| 1946.....               | 2,312.2          | 27.0            | 2,339.2 | 1,927.3 | 4,266.4     | + 411.9          |
| 1947.....               | 2,774.9          | 36.9            | 2,811.8 | 2,573.9 | 5,385.7     | + 237.8          |
| 1948.....               | 3,075.4          | 34.6            | 3,110.0 | 2,636.9 | 5,747.0     | + 473.1          |
| 1949.....               | 2,993.0          | 29.5            | 3,022.5 | 2,761.2 | 5,783.7     | + 261.2          |
| 1950.....               | 3,118.4          | 38.7            | 3,157.1 | 3,174.3 | 6,331.3     | - 17.2           |
| 1951 <sup>1</sup> ..... | 1,740.2          | 22.4            | 1,762.6 | 2,102.4 | 3,865.0     | - 339.8          |

<sup>1</sup> First six months only.

Canada was the world's third largest trading nation in 1950. Statistics published by the International Monetary Fund, adjusted to a common valuation basis for all countries and expressed in United States dollars, show that Canada ranked immediately after the United States and the United Kingdom in total value of trade (although France exported slightly more than Canada in the year). Canadian exports were equal to 5.4 p.c. of the world total recorded by the Fund, imports to 5.4 p.c., and total trade to 5.4 p.c. of the world total. World exports in 1950 were about 2.7 times their 1938 value, and world imports about 2.6 times higher. Canada's trade had increased by a greater proportion than this; the I.M.F. statistics show Canada's 1950 exports to be 3.3 times their 1938 value, and imports have increased by 4.1 times in value.

International trade is exceedingly important to the Canadian economy. The efficient utilization of Canada's rich forestry, agricultural and mineral resources produces a much greater supply of such products as newsprint paper, wheat and base metals than Canadian consumers and Canadian industries can use. It is by exchanging these efficiently produced surpluses



for goods that cannot be produced as efficiently in Canada that the high Canadian standard of living is maintained. In 1950 Canadian exports were no less than \$220 for each person in the country, and imports per capita were \$231. Canada's total trade per capita of \$451 was exceeded only by that of Hong Kong and New Zealand. The high value of Canada's per capita trade—about two-thirds greater than that of the United Kingdom—emphasizes the importance of the international exchange of goods to Canadians. This importance is further emphasized by the fact that commodity exports absorbed 17.7 p.c. of Canada's "gross national product" in 1950, and imports equalled 17.8 p.c. of "gross national expenditure".

### Canada's Place in World Trade, 1950

NOTE.—Sources of data: Trade—International Monetary Fund. Population—United Nations Statistical Office. The countries used are those for which data are published by the I.M.F., except that the per capita calculations excluded the Netherlands Antilles, the Canary Islands and countries with neither exports nor imports equal to \$100,000,000 U.S.

| Exports f.o.b. |        | Imports c.i.f. |        | Total Trade |        |
|----------------|--------|----------------|--------|-------------|--------|
| Country        | Amount | Country        | Amount | Country     | Amount |

#### VALUE OF TRADE

|                                     | \$'000'000<br>U.S. |                                     | \$'000'000<br>U.S. |                                     | \$'000'000<br>U.S. |
|-------------------------------------|--------------------|-------------------------------------|--------------------|-------------------------------------|--------------------|
| <b>World Total<sup>1</sup>.....</b> | <b>56,651</b>      | <b>World Total<sup>1</sup>.....</b> | <b>59,554</b>      | <b>World Total<sup>1</sup>.....</b> | <b>116,205</b>     |
| United States.....                  | 10,283             | United States.....                  | 10,074             | United States.....                  | 20,357             |
| United Kingdom.....                 | 6,307              | United Kingdom.....                 | 7,286              | United Kingdom.....                 | 13,593             |
| France.....                         | 3,065              | <b>Canada.....</b>                  | <b>3,200</b>       | <b>Canada.....</b>                  | <b>6,240</b>       |
| <b>Canada.....</b>                  | <b>3,040</b>       | France.....                         | 3,065              | France.....                         | 6,130              |
| Germany <sup>2</sup> .....          | 1,981              | Germany <sup>2</sup> .....          | 2,704              | Germany.....                        | 4,685              |
| Belgium and<br>Luxembourg.....      | 1,641              | Netherlands.....                    | 2,067              | Belgium and<br>Luxembourg.....      | 3,578              |
| Australia.....                      | 1,491              | Belgium and<br>Luxembourg.....      | 1,937              | Netherlands.....                    | 3,480              |
| Netherlands.....                    | 1,413              | Australia.....                      | 1,557              | Australia.....                      | 3,048              |
| Brazil.....                         | 1,346              | Italy.....                          | 1,442              | Italy.....                          | 2,641              |
| Federation of<br>Malaya.....        | 1,311              | India.....                          | 1,268              | India.....                          | 2,520              |
| India.....                          | 1,252              | Sweden.....                         | 1,182              | Brazil.....                         | 2,444              |
| Venezuela.....                      | 1,248              | Brazil.....                         | 1,098              | Sweden.....                         | 2,285              |
| Italy.....                          | 1,199              | Switzerland.....                    | 1,052              | Federation of<br>Malaya.....        | 2,263              |
| Sweden.....                         | 1,103              | Federation of<br>Malaya.....        | 952                | Switzerland.....                    | 1,959              |
| Argentina.....                      | 1,065              | Union of South<br>Africa.....       | 946                | Argentina.....                      | 1,895              |

#### TRADE PER CAPITA

|                                | \$ U.S.    |                                | \$ U.S.    |                                | \$ U.S.    |
|--------------------------------|------------|--------------------------------|------------|--------------------------------|------------|
| Hong Kong.....                 | 291        | Hong Kong.....                 | 295        | Hong Kong.....                 | 585        |
| New Zealand.....               | 267        | New Zealand.....               | 238        | New Zealand.....               | 504        |
| Venezuela.....                 | 250        | <b>Canada.....</b>             | <b>231</b> | <b>Canada.....</b>             | <b>451</b> |
| <b>Canada.....</b>             | <b>220</b> | Israel.....                    | 230        | Switzerland.....               | 417        |
| Federation of<br>Malaya.....   | 210        | Switzerland.....               | 224        | Belgium and<br>Luxembourg..... | 400        |
| Switzerland.....               | 193        | Belgium and<br>Luxembourg..... | 217        | Australia.....                 | 372        |
| Belgium and<br>Luxembourg..... | 184        | Norway.....                    | 208        | Venezuela.....                 | 371        |
| Australia.....                 | 182        | Netherlands.....               | 204        | Federation of<br>Malaya.....   | 362        |
| Trinidad and<br>Tobago.....    | 166        | Denmark.....                   | 200        | Denmark.....                   | 356        |
| Sweden.....                    | 157        | Australia.....                 | 190        | Netherlands.....               | 344        |
| Denmark.....                   | 156        | Sweden.....                    | 168        | Norway.....                    | 327        |
| Netherlands.....               | 140        | Trinidad and<br>Tobago.....    | 158        | Sweden.....                    | 326        |
| United Kingdom.....            | 125        | Federation of<br>Malaya.....   | 152        | Trinidad and<br>Tobago.....    | 324        |
| Cuba.....                      | 120        | Ireland.....                   | 148        | United Kingdom.....            | 269        |
| Norway.....                    | 119        | United Kingdom.....            | 144        | Israel.....                    | 258        |

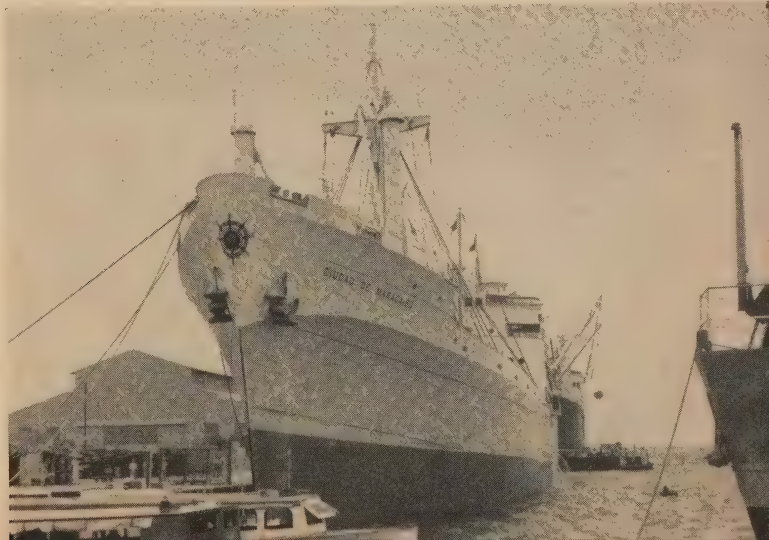
<sup>1</sup> Exclusive of China, U.S.S.R., and those countries of eastern Europe not reporting trade currently. <sup>2</sup> Federal Republic of Germany only (excludes Russian zone).

**Trade Trends in 1950-51.**—It took about six months for Canadian trade to become adapted to the new environment created by the general exchange rate adjustments of September 1949, and by the Sterling Area's decision to reduce its dollar purchases. In the first quarter of 1950, for example, the newsprint industry did not operate at full capacity due to difficulties experienced by some mills in finding dollar markets for newsprint formerly sold to sterling and other overseas countries. In this period, too, the full stimulus to imports from countries that had devalued their currencies in relation to the Canadian dollar did not become apparent. By the end of the second quarter, however, the recovery of exports was virtually complete, and the value of imports had risen sharply. Among the factors facilitating these adjustments was the recovery of the United States economy from its slight recession of the previous year, which provided a firm market for most of Canada's major exports. Imports were aided by continuing high levels of production, consumption and, notably, investment activity in Canada.

*Summary Trade Statistics, by Quarters, 1950 and 1951*

| Item                     | 1950          |                |               |                | 1951          |                |               |
|--------------------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|
|                          | First Quarter | Second Quarter | Third Quarter | Fourth Quarter | First Quarter | Second Quarter | Third Quarter |
| Values in \$'000,000     |               |                |               |                |               |                |               |
| Domestic exports.....    | 648.9         | 781.8          | 789.9         | 897.9          | 809.2         | 931.0          | 1,044.3       |
| Re-exports.....          | 8.1           | 9.3            | 10.2          | 11.0           | 10.4          | 12.0           | 11.3          |
| Imports.....             | 649.5         | 803.6          | 806.4         | 914.8          | 943.9         | 1,158.5        | 1,039.6       |
| Total Trade.....         | 1,306.5       | 1,594.7        | 1,606.5       | 1,823.6        | 1,763.5       | 2,101.5        | 2,095.2       |
| Trade balance.....       | +7.5          | -12.5          | -6.3          | -5.9           | -124.2        | -215.5         | +16.0         |
| Price Indexes, 1948=100  |               |                |               |                |               |                |               |
| Domestic exports.....    | 104.4         | 106.4          | 111.2         | 112.5          | 118.1         | 122.5          | 125.6         |
| Imports.....             | 108.1         | 109.4          | 111.2         | 115.0          | 122.9         | 129.4          | 128.0         |
| Volume Indexes, 1948=100 |               |                |               |                |               |                |               |
| Domestic exports.....    | 80.8          | 95.6           | 92.4          | 103.8          | 89.1          | 98.8           | 108.2         |
| Imports.....             | 91.2          | 111.6          | 110.0         | 120.8          | 116.6         | 135.9          | 122.9         |

"Ciudad de Maracaibo", built in Canada  
 for the Flota Mercante  
 Colombiana,  
 which operates a  
 monthly service from  
 Montreal to Venezuela  
 and Colombia.



The trade pattern resulting from these changes was considerably different from that of the early post-war years or from that of the inter-war period. The United States became much more important as an export market; in 1950 it took 65 p.c. of Canada's exports as compared with only 50 p.c. in 1949 and 33 p.c. in 1938. The Latin American Republics, which had not participated in the general exchange rate changes of 1949, also slightly increased their share of Canada's exports, but exports to the United Kingdom, to other Commonwealth countries and to Europe were lower in value and formed a smaller proportion of the total. These latter countries, however, found their position in the Canadian market strengthened by their devaluations, and tended to increase their shares of Canada's import trade. As a result of these changes the bilateral imbalance of Canada's trade was considerably reduced. The passive (negative) balance in trade with the United States declined to its lowest post-war level, and the active (positive) balances on trade with overseas countries became generally smaller.

The outbreak of war in Korea in 1950 introduced new factors to the situation. Particularly important was the accentuation of rearmament demand, especially for strategic materials. Not only was demand increased for materials for current use in production, but stock-pile and inventory demand was also greater. The result of this sharp demand increase was an acceleration of the already upward trend of international prices. This was particularly pronounced in the case of certain tropical products and textile fibres. The prices of Canada's imports were more sharply increased than those of exports. From June to December 1950, import prices climbed 7 p.c. and export prices almost 5 p.c. in spite of the insulating effects of the appreciation of the Canadian dollar in October. From December 1950 to June 1951, a further rise of over 11 p.c. in import prices and almost 10 p.c. in export prices was registered. The more rapid rise of import prices than of export prices made an important contribution to Canada's growing passive balance of trade, especially with countries of the Commonwealth and of Latin America.

More important in contributing to this adverse balance was the more rapid expansion of import volume than of export volume. Canada had been producing goods at or close to capacity levels throughout the post-war period, and relatively little margin was therefore available for increasing total output after the Korean fighting began. Canadian demand for Canadian goods had also been increasing, which further limited the possibilities of any sudden sustained increase in the volume of exports. But Canadian demand for foreign goods represents a relatively small part of the output of those countries from which the bulk of her imports are drawn, and even a sharp expansion of Canadian demand, such as that of 1950 and 1951, therefore places little additional strain on their productive facilities. In brief, expansion of the volume of exports can to-day be achieved only slowly, with the growth of production in Canada. Expansion of the volume of imports depends largely on Canadian effective demand, and is, in most lines, less severely restricted by supply limitations.

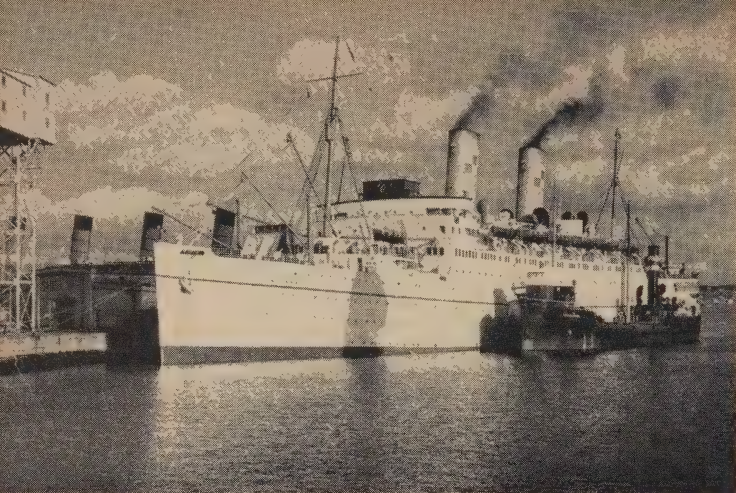
The more rapid rise in import values than export values resulted in a small passive balance in Canada's trade with all countries in the last half of 1950, a period when exports are seasonally high. In the first half of 1951, heavy passive balances occurred in both the first and the second quarters.





The Canadian International Trade Fair is held annually at Toronto's famous Exhibition Park. It is sponsored by the Canadian Government and is in reality a gigantic sample room where buyer and seller meet in the midst of merchandise from all over the world. In 1951, over 35,000 businessmen from 50 different countries came to see what was on the market. The fifth consecutive Fair will be held in June 1952.





*The Canadian Pacific liner, "Empress France", refueling Halifax, N.S.*

This was the first period since the early 1930's that a negative balance has resulted from trade with all countries.

The first half of 1951 also saw a revival of export trade to overseas markets. Sales to the United Kingdom, to other Commonwealth countries and to Europe increased in value, breaking the downward trend produced by the dollar shortage. This demand was felt most strongly in such fields as grains, lumber, wood-pulp and base metals. While the balance on trade with overseas countries—as with all countries—continued to grow less active, these countries may account for a greater share of both exports and imports in the near future than they have in the recent past. In the third quarter of 1951 the expansion in exports to the United Kingdom, the Commonwealth and to Europe became more rapid, and there was a substantial gain in the volume of these exports as well as in their value.

### *Percentage Distribution of Canadian Trade by Leading Countries and Trading Areas 1938 and 1949-51*

| Item and Year           | United States | United Kingdom | Europe | Commonwealth and Ireland | Latin America | Others |
|-------------------------|---------------|----------------|--------|--------------------------|---------------|--------|
| <b>Total Exports—</b>   |               |                |        |                          |               |        |
| Calendar year..... 1938 | 32.8          | 40.2           | 8.7    | 11.2 <sup>1</sup>        | 2.1           | 4.0    |
| 1949                    | 50.4          | 23.5           | 7.6    | 10.0 <sup>1</sup>        | 4.2           | 4.0    |
| 1950                    | 65.0          | 15.0           | 6.1    | 6.3                      | 4.6           | 3.0    |
| January-June..... 1951  | 63.9          | 14.4           | 6.1    | 6.5                      | 4.5           | 4.6    |
| <b>Imports—</b>         |               |                |        |                          |               |        |
| Calendar year..... 1938 | 62.7          | 17.6           | 5.9    | 9.5 <sup>1</sup>         | 2.4           | 1.6    |
| 1949                    | 70.7          | 11.1           | 3.1    | 6.7 <sup>1</sup>         | 7.0           | 1.4    |
| 1950                    | 67.1          | 12.7           | 3.3    | 7.6                      | 6.7           | 2.6    |
| January-June..... 1951  | 70.0          | 10.7           | 3.8    | 7.0                      | 6.3           | 2.2    |
| <b>Total Trade—</b>     |               |                |        |                          |               |        |
| Calendar year..... 1938 | 46.1          | 30.2           | 7.4    | 10.4 <sup>1</sup>        | 2.2           | 3.0    |
| 1949                    | 60.1          | 17.6           | 5.4    | 8.4 <sup>1</sup>         | 5.5           | 2.8    |
| 1950                    | 66.0          | 13.8           | 4.7    | 7.0                      | 5.7           | 2.8    |
| January-June..... 1951  | 67.2          | 12.4           | 4.8    | 6.8                      | 5.5           | 3.3    |

<sup>1</sup> Newfoundland excluded in 1938 and 1949 to maintain comparability of areas. The percentages for Newfoundland are: 1938—1.03, 0.32, 0.72; 1949—0.32, 0.03, 0.18.



**Trade Policy.**—Canada continued to work for the lowering of world trade barriers in 1950-51. Most-favoured-nation treaties were signed in 1950 with Venezuela, Ecuador and Costa Rica. Canada now has trade agreements with all but one (Honduras) of the Latin American Republics. Negotiations with the United Kingdom produced an agreement for some lessening of the import controls of the British West Indies in 1951. In the spring of 1951 Canada concluded new agreements with several of the parties represented at the Torquay Conference of the members of the General Agreement on Tariffs and Trade. Among these latter agreements was a further exchange of concessions with the United States. The agreement of the International Monetary Fund to allow members to relax restrictions on the sale of non-monetary gold, announced in September 1951, may also aid some Canadian producers.

Among the unilateral actions affecting trade taken by the Canadian Government, the most important were the freeing of the exchange rate in October 1950 and the abolition of the remainder of the Emergency Exchange Conservation Controls at the beginning of 1951. The first of these decisions was taken to check an undesirably large capital inflow, but had the incidental effect of insulating Canada from rising world prices in the latter part of 1950 to the extent of about 5 p.c. The second was made possible by the recovery of Canada's reserves of gold and United States dollars to the level possessed before the dollar shortage crisis of 1947.

**Commodity Exports and Imports.**—A majority of the important commodities in which Canada trades recorded higher values in 1950 and 1951 than in earlier periods. Most notable in exports were the sharp increases in the value of such varied products as wood-pulp, planks and boards, shingles, asbestos, zinc, furs, fresh beef, fresh fish and whisky. Wheat and machinery were

Scotia potatoes  
loaded at Hali-  
for shipment to the  
ish West Indies.  
the first eleven  
nths of 1951,  
30,210 bu. of seed  
atoes and 2,467,-  
bu. of other pota-  
s were exported  
m Canada.







*Unloading china  
ports from Occupied  
Japan at the Port of  
Vancouver. In  
background is  
Marine Building.*

among the few to decline. Wheat exports were exceptionally high in 1949, due in part to heavy purchases by India and the Union of South Africa; thus the drop from 1949 to 1950 represents a return to a more normal level. In the first half of 1951 the quantity of wheat sold was greater than in the 1950 period, but the lower average grade of the 1950 crop depressed the price sufficiently to cause a decline in value. Machinery exports were adversely affected by the severe Sterling Area dollar shortage and by the ending of reconstruction demand in Europe. They have declined since 1947, but recovered somewhat in the first half of 1951. Exports of ships, of locomotives and of railway cars, heavy in earlier post-war years, fell off after contracts were fulfilled. Exports of bacon and cheese to the United Kingdom were less important than formerly.

Increases in the value of important imports were even more general than those in exports. Among the more spectacular increases were those in coffee, rubber and vegetable oils, in wool, cotton and textile piece goods, in primary iron and steel and in a wide variety of manufactured products. Canadian consumption of vegetable oils has been notably higher since federal legislation banning margarine production was found to be ultra vires, and the high level of production and investment has increased Canada's need for imported steel; machinery and electrical apparatus. Some of the value increases mentioned above are illusory in that there was no corresponding increase in volume. Wool prices in 1950 were about one-third above their 1949 level, and in the first half of 1951 more than doubled their 1950 average. Rubber prices in 1950 averaged two-thirds above their 1949 level, and in the first half of 1951 almost doubled this inflated level. Smaller price increases were general.

Price increases in different commodities are too varied for detailed discussion here. Generally, in both exports and imports, industrial raw materials showed greater gains than foodstuffs or manufactured goods. Tropical products generally showed greater increases than temperate zone

products. By the middle of 1951, however, many of the prices that had risen most were beginning to decline, while those that had risen more slowly still edged upwards.

### Domestic Exports to Leading Countries, 1947-51

NOTE.—Countries ranked by value of exports in 1950.

| Country                    | Calendar Year       |           |           |           | January-June |           |
|----------------------------|---------------------|-----------|-----------|-----------|--------------|-----------|
|                            | 1947                | 1948      | 1949      | 1950      | 1950         | 1951      |
|                            | \$'000              | \$'000    | \$'000    | \$'000    | \$'000       | \$'000    |
| United States.....         | 1,034,226           | 1,500,987 | 1,503,459 | 2,020,988 | 904,949      | 1,109,862 |
| United Kingdom.....        | 751,198             | 686,914   | 704,956   | 469,910   | 235,917      | 253,523   |
| Belgium and Luxembourg..   | 52,749              | 33,035    | 56,525    | 66,351    | 20,233       | 33,427    |
| Union of South Africa..... | 66,674              | 83,248    | 77,713    | 42,561    | 22,863       | 23,182    |
| Australia.....             | 60,294              | 38,257    | 35,363    | 35,446    | 16,431       | 19,423    |
| India.....                 | 42,947 <sup>1</sup> | 33,698    | 72,551    | 31,520    | 14,629       | 22,262    |
| Switzerland.....           | 14,196              | 19,389    | 32,281    | 26,435    | 8,320        | 8,714     |
| Venezuela.....             | 12,989              | 16,935    | 27,689    | 25,457    | 12,585       | 12,002    |
| Japan.....                 | 559                 | 8,001     | 5,860     | 20,533    | 11,475       | 35,729    |
| Norway.....                | 20,320              | 23,429    | 21,736    | 18,924    | 7,157        | 11,706    |
| France.....                | 81,058              | 92,963    | 36,004    | 18,403    | 9,745        | 13,390    |
| Cuba.....                  | 7,502               | 10,987    | 14,391    | 18,005    | 7,881        | 9,356     |
| Mexico.....                | 11,701              | 15,045    | 15,411    | 17,624    | 7,064        | 11,557    |
| Brazil.....                | 31,660              | 28,601    | 17,259    | 15,806    | 4,724        | 14,082    |
| Italy.....                 | 35,688              | 32,379    | 12,567    | 15,476    | 4,847        | 15,448    |
| Colombia.....              | 9,950               | 8,406     | 8,012     | 14,806    | 6,259        | 6,852     |
| Argentina.....             | 31,697              | 16,680    | 2,902     | 13,360    | 8,614        | 2,654     |
| Ireland.....               | 17,598              | 9,257     | 9,052     | 13,321    | 6,222        | 8,033     |
| Israel.....                | 8,473               | 5,036     | 12,709    | 12,126    | 7,370        | 5,697     |
| New Zealand.....           | 37,386              | 18,375    | 14,489    | 10,983    | 4,839        | 5,389     |
| Philippines.....           | 10,448              | 9,810     | 13,983    | 10,829    | 6,209        | 8,107     |
| Panama.....                | 1,882               | 4,123     | 13,632    | 9,019     | 3,881        | 3,245     |
| Germany.....               | 6,690               | 13,214    | 23,451    | 8,873     | 3,411        | 8,560     |
| Pakistan.....              |                     | 7,775     | 18,097    | 8,681     | 6,363        | 2,876     |
| Netherlands.....           | 55,940              | 43,684    | 13,759    | 8,617     | 5,085        | 4,598     |

<sup>1</sup> Pakistan included with India before 1948.

### Imports from Leading Countries, 1947-51

NOTE.—Countries ranked by value of imports in 1950.

| Country                   | Calendar Year       |              |           |           | January-June |           |
|---------------------------|---------------------|--------------|-----------|-----------|--------------|-----------|
|                           | 1947                | 1948         | 1949      | 1950      | 1950         | 1951      |
|                           | \$'000              | \$'000       | \$'000    | \$'000    | \$'000       | \$'000    |
| United States.....        | 1,974,679           | 1,805,763    | 1,951,860 | 2,130,476 | 1,004,546    | 1,471,017 |
| United Kingdom.....       | 189,370             | 299,502      | 307,450   | 404,213   | 187,177      | 224,606   |
| Venezuela.....            | 46,688              | 94,758       | 91,697    | 87,264    | 38,161       | 58,455    |
| India.....                | 42,250 <sup>1</sup> | 33,400       | 26,233    | 37,262    | 20,440       | 23,732    |
| Mexico.....               | 16,980              | 27,258       | 25,494    | 32,974    | 13,576       | 10,956    |
| Australia.....            | 14,222              | 27,415       | 27,429    | 32,803    | 9,595        | 18,587    |
| Federation of Malaya..... | 16,908              | 21,878       | 16,187    | 20,852    | 9,450        | 34,974    |
| Brazil.....               | 13,888              | 20,559       | 21,163    | 28,178    | 11,405       | 20,118    |
| Arabia.....               | <sup>2</sup>        | <sup>2</sup> | 12,127    | 28,115    | 11,779       | 19,923    |
| Belgium and Luxembourg..  | 10,120              | 13,661       | 19,022    | 22,795    | 9,222        | 17,339    |
| British Guiana.....       | 12,358              | 15,380       | 22,355    | 21,735    | 7,117        | 7,482     |
| Jamaica.....              | 6,371               | 9,557        | 16,977    | 19,080    | 6,676        | 7,769     |
| Ceylon.....               | 11,653              | 11,182       | 11,635    | 17,604    | 8,032        | 11,326    |
| Netherlands Antilles..... | 8,648               | 7,286        | 3,713     | 17,336    | 4,884        | 5,522     |
| Trinidad and Tobago.....  | 5,654               | 9,027        | 14,575    | 15,205    | 7,270        | 7,508     |
| British East Africa.....  | 7,683               | 9,543        | 6,094     | 15,067    | 5,920        | 5,713     |
| France.....               | 8,755               | 12,648       | 13,309    | 14,669    | 5,323        | 10,379    |
| Switzerland.....          | 11,941              | 7,444        | 10,902    | 14,464    | 6,810        | 7,202     |
| Colombia.....             | 9,197               | 8,668        | 12,588    | 13,342    | 5,311        | 6,190     |
| Japan.....                | 350                 | 3,144        | 5,551     | 12,087    | 4,988        | 6,178     |
| New Zealand.....          | 10,831              | 11,603       | 8,910     | 11,855    | 4,622        | 8,556     |
| Germany.....              | 498                 | 1,729        | 7,134     | 11,026    | 4,172        | 12,643    |
| Argentina.....            | 17,961              | 5,746        | 3,324     | 10,913    | 2,946        | 10,566    |
| Fiji.....                 | 4,178               | 8,275        | 7,997     | 10,194    | 4,861        | 2,515     |
| Barbados.....             | 7,776               | 6,387        | 7,080     | 10,057    | 3,915        | 7,175     |

<sup>1</sup> Pakistan included with India before 1948.

<sup>2</sup> Not listed separately before 1949.





Part of a consignment of 2,500 tons of steel from Great Britain being unloaded at Halifax, N.S.

### Principal Domestic Exports, 1947-51

NOTE.—Commodities ranked by value of exports in 1950.

| Commodity                                          | Calendar Year |         |         |         | January-June |         |
|----------------------------------------------------|---------------|---------|---------|---------|--------------|---------|
|                                                    | 1947          | 1948    | 1949    | 1950    | 1950         | 1951    |
|                                                    | \$'000        | \$'000  | \$'000  | \$'000  | \$'000       | \$'000  |
| Newsprint paper.....                               | 342,293       | 383,123 | 433,882 | 485,746 | 235,464      | 248,502 |
| Wheat.....                                         | 265,200       | 243,023 | 435,158 | 325,614 | 156,582      | 148,631 |
| Planks and boards.....                             | 208,375       | 196,023 | 160,420 | 290,847 | 108,239      | 150,605 |
| Wood-pulp.....                                     | 177,803       | 211,564 | 170,675 | 208,556 | 91,989       | 163,360 |
| Nickel.....                                        | 60,443        | 73,802  | 92,324  | 105,300 | 52,171       | 59,410  |
| Aluminum, primary and semi-fabricated.....         | 56,614        | 92,737  | 91,032  | 103,206 | 52,776       | 54,888  |
| Wheat flour.....                                   | 196,578       | 125,151 | 97,693  | 93,839  | 50,252       | 66,742  |
| Copper, primary and semi-fabricated.....           | 52,916        | 75,206  | 84,052  | 82,990  | 42,129       | 37,198  |
| Farm implements and machinery (except tractors)... | 42,238        | 73,760  | 84,127  | 78,512  | 47,448       | 54,715  |
| Asbestos, unmanufactured..                         | 32,291        | 41,399  | 36,934  | 62,752  | 29,031       | 40,091  |
| Cattle, chiefly for beef.....                      | 630           | 47,226  | 46,146  | 61,686  | 29,289       | 27,662  |
| Zinc, primary and semi-fabricated.....             | 30,020        | 42,337  | 55,700  | 58,710  | 22,780       | 33,771  |
| Fish, fresh and frozen.....                        | 29,533        | 35,263  | 34,752  | 49,711  | 18,365       | 22,777  |
| Whisky.....                                        | 22,983        | 26,957  | 32,703  | 41,682  | 17,078       | 23,698  |
| Automobiles, trucks and parts.....                 | 91,639        | 55,086  | 38,808  | 40,228  | 19,313       | 21,637  |
| Fertilizers, chemical.....                         | 34,386        | 36,374  | 39,385  | 38,874  | 21,536       | 18,897  |
| Lead, primary and semi-fabricated.....             | 30,700        | 34,322  | 41,886  | 38,105  | 12,390       | 20,671  |
| Pulpwood.....                                      | 34,529        | 43,573  | 31,317  | 34,768  | 13,260       | 24,534  |
| Beef and veal, fresh.....                          | 9,232         | 36,594  | 30,629  | 34,219  | 13,379       | 26,657  |
| Shingles.....                                      | 20,254        | 22,370  | 16,803  | 32,401  | 12,269       | 16,037  |
| Fish, cured.....                                   | 12,309        | 14,864  | 23,712  | 28,616  | 14,104       | 12,761  |
| Bacon and hams.....                                | 62,081        | 69,960  | 24,176  | 28,307  | 20,227       | 2,521   |
| Machinery (non-farm).....                          | 41,022        | 40,539  | 31,840  | 25,644  | 11,334       | 18,250  |
| Fur skins (undressed).....                         | 28,036        | 23,262  | 22,533  | 23,792  | 13,040       | 19,132  |
| Barley.....                                        | 1,211         | 26,947  | 25,472  | 23,442  | 7,791        | 13,847  |



## Principal Imports, 1947-51

NOTE.—Commodities ranked by value of imports in 1950.

| Commodity                                            | Calendar Year |         |         |         | January-June |         |
|------------------------------------------------------|---------------|---------|---------|---------|--------------|---------|
|                                                      | 1947          | 1948    | 1949    | 1950    | 1950         | 1951    |
|                                                      | \$'000        | \$'000  | \$'000  | \$'000  | \$'000       | \$'000  |
| Machinery (non-farm).....                            | 206,012       | 217,090 | 216,316 | 226,249 | 110,510      | 163,482 |
| Crude petroleum.....                                 | 127,459       | 191,980 | 189,364 | 200,506 | 89,872       | 108,853 |
| Automobile parts (except engines).....               | 98,432        | 101,261 | 117,748 | 158,405 | 75,731       | 111,471 |
| Coal, bituminous.....                                | 96,070        | 127,673 | 93,455  | 118,788 | 51,990       | 53,024  |
| Tractors and parts.....                              | 69,443        | 88,670  | 118,506 | 108,320 | 68,022       | 67,826  |
| Rolling-mill products, iron and steel.....           | 77,970        | 83,929  | 98,093  | 93,639  | 39,703       | 78,030  |
| Cotton, raw.....                                     | 58,678        | 55,546  | 65,676  | 88,461  | 35,174       | 59,980  |
| Electrical apparatus, <i>n.o.p.</i> .....            | 68,773        | 62,127  | 69,802  | 82,585  | 40,416       | 60,371  |
| Sugar, raw.....                                      | 46,407        | 62,116  | 65,624  | 76,409  | 27,809       | 30,064  |
| Passenger automobiles and buses.....                 | 57,499        | 21,428  | 38,970  | 75,330  | 37,125       | 47,412  |
| Coal, anthracite.....                                | 40,803        | 56,292  | 45,598  | 54,265  | 23,630       | 21,144  |
| Farm implements and machinery (except tractors)..... | 35,969        | 51,325  | 58,706  | 53,322  | 30,435       | 34,995  |
| Engines, internal combustion.....                    | 37,589        | 43,031  | 45,610  | 47,068  | 23,767       | 37,336  |
| Cotton piece goods.....                              | 82,574        | 52,815  | 52,666  | 45,901  | 23,147       | 35,907  |
| Fuel oils.....                                       | 25,026        | 32,309  | 17,464  | 45,466  | 14,832       | 23,614  |
| Coffee, green.....                                   | 13,327        | 23,426  | 28,584  | 41,664  | 17,591       | 25,122  |
| Gasoline.....                                        | 25,522        | 46,462  | 45,256  | 39,759  | 12,755       | 13,163  |
| Pipes, tubes and fittings, iron and steel.....       | 13,464        | 18,598  | 28,145  | 35,394  | 17,273       | 20,864  |
| Rubber, crude and semi-fabricated.....               | 17,845        | 20,878  | 17,662  | 34,361  | 11,355       | 43,627  |
| Tourist purchases.....                               | 15,870        | 316     | 28,847  | 33,090  | 10,827       | 16,176  |
| Wool piece goods.....                                | 29,663        | 42,648  | 41,747  | 31,719  | 16,251       | 22,499  |
| Vegetable oils (except essential oils).....          | 22,437        | 18,008  | 20,773  | 30,615  | 13,440       | 26,795  |
| Wool noils, tops, waste.....                         | 13,085        | 24,108  | 18,555  | 28,500  | 11,430       | 28,182  |
| Tea, black.....                                      | 20,229        | 17,521  | 21,126  | 28,303  | 15,556       | 12,165  |
| Wool, raw.....                                       | 16,985        | 23,636  | 18,849  | 26,806  | 11,621       | 27,173  |

*Wheat, barley malt and asbestos ready for shipment to South America.*





*Unloading British-built cars at Halifax, N.S. About 137,000 of these small vehicles have been absorbed by the Canadian market in the past three years.*

### ***Canadian Balance of International Payments***

International financial dislocations and foreign exchange problems have been a characteristic of recent years and have been world-wide in their extent and influence. International movements of commodities have been out of balance because of shortages and dislocations caused by war, and because of the inability of nations deficient in exchange reserves to pay for imports. Thus the ability of many of Canada's customers overseas to pay for Canadian exports has been impaired by their post-war financial position. Normally Canada exports much more to these countries than she purchases and relies on the receipts of exchange to settle deficits in the United States.

In the early post-war years, Canadian demands for United States goods rose very rapidly and exports to the United States were limited. More recently, however, with the falling off in exports to overseas countries, a sharp gain in exports to the United States served to reduce rapidly the current deficit with that country. At the same time some reduction took place in the volume of Canadian imports from the United States following the original introduction of import restrictions, and affected also by increasing supplies of goods elsewhere and some satisfaction of accumulated demands. However, the volume of Canadian imports from the United States again rose sharply in the second half of 1950 following the outbreak of hostilities in Korea and rose to new peaks in 1951.



The early post-war years 1946 and 1947 had certain features in common. In both years bilateral disequilibrium was very wide with so much of the exports to overseas countries being financed out of loans and contributions, combined with the large Canadian import balance and current deficit with the United States which were related to the heavy exports overseas and widespread Canadian prosperity. Thus while there was a large current balance in 1946 there was a loss of reserves as a large part of Canada's exports did not yield foreign exchange.

The current account surplus with all countries was sharply reduced in 1947 by the great increase in the current deficit with the United States which

*Newspaper inks are almost completely a product of petroleum and the crude particularly suitable for this purpose comes from Venezuela. Over 700,000 gal. of ink oil are imported each year for Canadian ink manufacturers.*

*A Canadian oil tanker sails quietly up a jungle river to load South American crude.*

▼





almost doubled within the year as Canadian imports continued to expand. As there continued to be substantial drawings on the post-war loans, a large part of Canada's liquid reserves were used to meet the heavy deficit in that year with the United States which reached an all-time peak. Another development contributing to part of the loss of \$743,000,000 in official reserves in 1947 was the outflow of capital in connection with the redemption of Canadian securities abroad and the Canadian contribution to the International Monetary Fund. As a result, an emergency exchange conservation program was introduced in November 1947, which took the form chiefly of prohibitions and restrictions on imports, and restrictions on other expenditures of United States dollars, together with some encouragement of the development of Canadian sources of United States dollars.

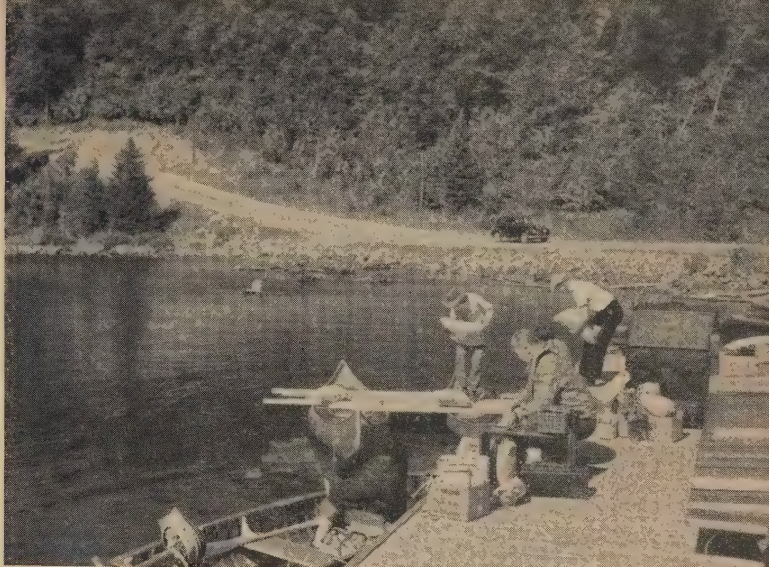
Great improvement occurred in Canada's position in 1948 due to a rapid decline in the current deficit with the United States to \$393,000,000 from \$1,135,000,000 in 1947 and to a sharp curtailment in exports to overseas countries financed by loans from the Canadian Government. Net drawings for this purpose were \$126,000,000. The current account surplus rose to \$452,000,000 influenced by the larger current receipts with heavy United States demands and the stimulus to exports from the removal of embargoes and controls on exports to the United States, combined with the restrictions on imports from the United States. Requirements of funds for other capital purposes were less in contrast to the heavy outflows in 1947 and, furthermore, adding to the reserves in 1948 was a new bond issue of the Canadian Government of \$150,000,000 sold in the United States. There was consequently a rapid rise in Canada's official reserves to \$496,000,000 in 1948.

The improvement in reserves continued in 1949 on a reduced scale. The decline in the current account surplus with all countries to \$180,000,000 was chiefly due to the fact that the current deficit with the United States again expanded rapidly, rising to \$594,000,000 from \$393,000,000 in 1948. This resulted from a rise in the value of all imports caused by price increases and some relaxation in import restrictions. While the value of exports to the United States remained comparatively high for the year as a whole, demand in the earlier part of the year was weakened by the business recession in the United States. At the same time there was an appreciable decline in the surplus on travel account with that country due to the rise in expenditures of Canadian travellers in the United States, and a rise in the deficit on income account with much heavier dividends being paid by Canadian companies.

The most outstanding changes in the balance of payments in 1950 were the emergence of a current account deficit for the first time in almost two decades, the reduction in bilateral disequilibrium with the principal trading areas and the unprecedentedly large capital inflows over the summer months before the withdrawal from a fixed rate of exchange by Canada at the beginning of October 1950.

The change to a current account deficit was due to a substantial increase in the value of imports which led to the virtual elimination of a balance on commodity account. At the same time there was a sharp increase in the deficit from all other current transactions, resulting from exceptionally large payments of dividends by Canadian companies to shareholders abroad and to increased expenditures by Canadians on travel and other services.

ing cottage sup-  
s for a holiday on  
ke Lake, Algon-  
Park, Ont.



This change to a current deficit in Canada's global accounts occurred even though the current deficit with the United States was reduced significantly due to an even greater reduction in the current surplus with the Sterling Area and other overseas countries, as exports overseas declined while imports rose.

The pronounced inflow of capital from the United States, heavily concentrated in the third quarter of the year resulted in an increase in official reserves amounting to \$625,000,000 bringing the total at the end of December to \$1,741,700,000.

In 1951 the current account deficit expanded further. The greatest change was the expansion in the import balance which occurred in the first half of the year. The large deficit from all other current transactions also increased in 1951. There was a notable rise in the current account surplus with the United Kingdom and other overseas countries as exports overseas rose sharply in the second half of the year.

Large capital inflows in 1951 were instrumental in maintaining the level of the official reserves. These rose slightly during the year to \$1,778,600,000 at the end of 1951.

### ***Tourist Trade***

The current trend in travel between Canada and other countries is towards sharply increased expenditures by Canadians on foreign travel, accompanied by stationary or lower spending by foreign travellers in Canada. The result in 1950 was a substantial drop in Canada's net credit from international travel. This trend continued in 1951 as Canadian travel expenditures abroad rose even more rapidly than in 1950 and the customary credit balance disappeared.

Travel spending by Canadians abroad rose by 17 p.c. during 1950 to \$226,000,000 while expenditures in Canada of visitors from other countries





*The Laurentian Mountain district, north of Montreal, is a skier's paradise.*

dropped 4 p.c. to \$275,000,000. Canada's credit balance from international travel reached its all-time high of \$145,000,000 in 1948 due to restrictions on Canadian travel expenditure introduced in November 1947. In 1949, with removal of some of the restrictions, the balance dropped to \$92,000,000 and the 1950 net of \$49,000,000 was, with one exception, the lowest on record.

Expenditures of Canadian travellers outside of Canada in 1950 were close to three times the average for the preceding twenty years. Much of the 1950 increase over 1949 expenditures can be attributed to motorists, who went to the United States in greater numbers and stayed for longer visits. Purchases by motorists, declared under the \$100 customs exemption, were \$33,000,000, 14 p.c. higher than they were in 1949. Most of the rise occurred late in the year when there was greater freedom in obtaining United States currency for pleasure travel.

The 1950 drop in expenditures by United States travellers in Canada resulted partly from a decrease in volume of traffic. Total border-crossings by residents of the United States reached a peak of 25,100,000 in 1948, 24,300,000 in 1949 and 23,500,000 in 1950. The decline was due exclusively to non-automobile types of traffic. Entries of motorists on customs permits increased in both years and their expenditures increased by \$5,900,000 in



1949 and \$2,800,000 in 1950. These gains, however, were more than offset in 1950 by losses in non-automobile types of traffic.

In contrast to travel with the United States, which has shown an annual credit balance for 25 years or more, travel with overseas countries customarily results in a debit balance. In 1950 the balance stood at \$18,000,000, the result of debits of \$33,000,000 and credits of \$15,000,000.

In the first half of 1951 there was an increase of 10 p.c. in the number of visitors to Canada from other countries but their expenditures were practically the same as in the first half of 1950, indicating a drop in average expenditure per visit. In the non-automobile types of traffic this appears to have been caused by small decreases in average length of visit and in daily expenditure rate. Partially complete information on visits of motorists in 1951 points towards a continuation of the drop in length of visit which has occurred every year since 1947. If special groups such as summer residents and commuters are excepted, there was a drop of 11 p.c. between 1947 and 1950 in the average length of stay of motorists entering Canada on customs permits. Much of this occurred in Ontario where intransit traffic between Buffalo and Detroit accounts for a substantial part of the total number of entries. During recent years intransit motorists have formed a steadily increasing proportion of the total number of entries into Ontario and have depressed the length of the average visit of United States motorists to that Province.

The balance of payments on travel account between Canada and all countries for the years 1942-51 is given in the following statement.

| <i>Year</i> | <i>Credits</i>        | <i>Debits</i> | <i>Net</i> | <i>Year</i>             | <i>Credits</i>        | <i>Debits</i> | <i>Net</i> |
|-------------|-----------------------|---------------|------------|-------------------------|-----------------------|---------------|------------|
|             | (Millions of Dollars) |               |            |                         | (Millions of Dollars) |               |            |
| 1942.....   | 82                    | 27            | +55        | 1947.....               | 251                   | 167           | + 84       |
| 1943.....   | 89                    | 37            | +52        | 1948.....               | 280                   | 135           | +145       |
| 1944.....   | 120                   | 60            | +60        | 1949.....               | 285                   | 193           | + 92       |
| 1945.....   | 166                   | 83            | +83        | 1950.....               | 275                   | 226           | + 49       |
| 1946.....   | 222                   | 136           | +86        | 1951 <sup>a</sup> ..... | 271                   | 280           | - 9        |

Expenditures of travellers between Canada and the United States from 1945 to 1950 are classified below by means of travel.

| <i>Means of Travel</i>                          | <i>1945</i>                    | <i>1946</i> | <i>1947</i> | <i>1948</i> | <i>1949</i> | <i>1950</i> |
|-------------------------------------------------|--------------------------------|-------------|-------------|-------------|-------------|-------------|
|                                                 | (Millions of Canadian Dollars) |             |             |             |             |             |
| EXPENDITURES IN CANADA OF TRAVELLERS FROM U.S.— |                                |             |             |             |             |             |
| Automobile.....                                 | 56.9                           | 98.0        | 118.4       | 139.4       | 145.3       | 148.1       |
| Rail.....                                       | 64.3                           | 61.4        | 56.6        | 55.9        | 52.8        | 43.5        |
| Boat.....                                       | 13.0                           | 17.3        | 22.1        | 16.0        | 13.8        | 13.7        |
| Through bus.....                                | 12.9                           | 15.8        | 16.7        | 20.8        | 24.4        | 20.8        |
| Aircraft.....                                   | 5.6                            | 10.3        | 13.1        | 12.1        | 17.6        | 21.4        |
| Other (pedestrians, local bus, etc.)....        | 10.6                           | 13.3        | 14.2        | 23.2        | 13.2        | 12.2        |
| TOTALS.....                                     | 163.3                          | 216.1       | 241.1       | 267.4       | 267.1       | 259.7       |
| EXPENDITURES IN U.S. OF TRAVELLERS FROM CANADA— |                                |             |             |             |             |             |
| Automobile.....                                 | 7.5                            | 21.7        | 32.6        | 25.1        | 52.9        | 67.3        |
| Rail.....                                       | 39.4                           | 49.6        | 52.2        | 35.9        | 46.2        | 47.0        |
| Boat.....                                       | 1.8                            | 3.2         | 4.1         | 3.1         | 4.6         | 3.5         |
| Through bus.....                                | 17.0                           | 28.5        | 34.6        | 25.5        | 33.1        | 42.0        |
| Aircraft.....                                   | 4.1                            | 8.8         | 9.0         | 7.3         | 9.7         | 13.8        |
| Other (pedestrians, local bus, etc.)....        | 11.0                           | 18.1        | 19.8        | 16.3        | 18.4        | 19.1        |
| TOTALS.....                                     | 80.9                           | 129.9       | 152.3       | 113.2       | 164.9       | 192.7       |



# Finance

## • Public Finance

THIS section presents public finance statistics of all levels of government in Canada—federal, provincial and municipal.

### Combined Statistics of All Governments

**Combined Revenue and Expenditure.**—A perusal of the following combined revenue and expenditure tables will indicate that during the post-war era Federal Government revenue has tended to decline slightly while revenue of provincial and municipal governments has continuously increased. The decreasing expenditure of the Federal Government reflects the cessation of hostilities and the marked reduction in demobilization and reconversion expenditures, somewhat offset by increased social welfare payments. Provincial and municipal increasing expenditure indicates the commencement and accelerated participation in capital expenditure programs long deferred by scarcities of materials and the exigencies of war. Combined revenue of all governments has tended to increase while the trend in combined expenditure is downwards. This anomaly is reflected almost entirely in the federal segment of the government structure. Revenue and expenditure are shown on a "net" basis, i.e., shared-cost contributions of other governments, institutional revenue and certain other sales of commodities and services, and interest revenue being treated as offsets to corresponding expenditures.

### Comparative Federal, Provincial and Municipal Revenue, 1937-48

NOTE.—Figures are for the fiscal years ended nearest to Dec. 31. Inter-governmental transfers such as subsidies and payments under the Dominion-Provincial Taxation Agreement Act are excluded.

| Year      | Federal                 | Provincial and Municipal |           |           | Total     |
|-----------|-------------------------|--------------------------|-----------|-----------|-----------|
|           |                         | Provincial               | Municipal | Total     |           |
|           | Revenue                 |                          |           |           |           |
|           | \$'000                  | \$'000                   | \$'000    | \$'000    | \$'000    |
| 1937..... | 460,544                 | 221,397                  | 304,161   | 525,558   | 986,102   |
| 1939..... | 480,027                 | 236,223                  | 316,964   | 553,187   | 1,033,214 |
| 1941..... | 1,389,433               | 301,842                  | 331,206   | 633,048   | 2,022,481 |
| 1943..... | 2,522,414               | 250,646                  | 340,690   | 591,336   | 3,113,750 |
| 1945..... | 2,694,116               | 316,724                  | 356,289   | 673,013   | 3,367,129 |
| 1946..... | 2,738,515               | 395,792                  | 380,342   | 776,134   | 3,514,649 |
| 1947..... | 2,663,310               | 533,857                  | 413,351   | 947,208   | 3,610,518 |
| 1948..... | 2,575,514               | 635,697                  | 462,977   | 1,098,674 | 3,674,188 |
|           | Percentage Distribution |                          |           |           |           |
| 1937..... | 46.7                    | 22.5                     | 30.8      | 53.3      | 100.0     |
| 1939..... | 46.5                    | 22.8                     | 30.7      | 53.5      | 100.0     |
| 1941..... | 68.7                    | 14.9                     | 16.4      | 31.3      | 100.0     |
| 1943..... | 81.0                    | 8.1                      | 10.9      | 19.0      | 100.0     |
| 1945..... | 80.0                    | 9.4                      | 10.6      | 20.0      | 100.0     |
| 1946..... | 77.9                    | 11.3                     | 10.8      | 22.1      | 100.0     |
| 1947..... | 73.8                    | 14.8                     | 11.4      | 26.2      | 100.0     |
| 1948..... | 70.1                    | 17.3                     | 12.6      | 29.9      | 100.0     |



**Comparative Federal, Provincial and Municipal Revenue,  
1937-48—concluded**

| Year      | Federal                    | Provincial and Municipal |           |        | Total  |
|-----------|----------------------------|--------------------------|-----------|--------|--------|
|           |                            | Provincial               | Municipal | Total  |        |
|           | Index of Change (1939=100) |                          |           |        |        |
|           | \$'000                     | \$'000                   | \$'000    | \$'000 | \$'000 |
| 1937..... | 95.9                       | 93.7                     | 96.0      | 95.0   | 95.4   |
| 1939..... | 100.0                      | 100.0                    | 100.0     | 100.0  | 100.0  |
| 1941..... | 289.4                      | 127.8                    | 104.5     | 114.4  | 195.7  |
| 1943..... | 525.5                      | 106.1                    | 107.5     | 106.9  | 301.4  |
| 1945..... | 561.2                      | 134.1                    | 112.4     | 121.7  | 325.9  |
| 1946..... | 570.5                      | 167.6                    | 120.0     | 140.3  | 340.2  |
| 1947..... | 554.8                      | 226.0                    | 130.4     | 171.2  | 349.4  |
| 1948..... | 536.5                      | 269.1                    | 146.1     | 198.6  | 355.6  |

**Comparative Federal, Provincial and Municipal Expenditure (Capital  
and Current), 1937-48**

NOTE.—Figures are for the fiscal years ended nearest to Dec. 31. Inter-governmental transfers such as subsidies and payments under the Dominion-Provincial Taxation Agreement Act are excluded.

| Year                       | Federal   | Provincial and Municipal |           |           | Total     |
|----------------------------|-----------|--------------------------|-----------|-----------|-----------|
|                            |           | Provincial               | Municipal | Total     |           |
| Expenditure                |           |                          |           |           |           |
|                            | \$'000    | \$'000                   | \$'000    | \$'000    | \$'000    |
| 1937.....                  | 444,599   | 359,689                  | 296,288   | 655,977   | 1,100,576 |
| 1939.....                  | 571,198   | 354,883                  | 304,580   | 659,463   | 1,230,661 |
| 1941.....                  | 1,718,787 | 311,260                  | 292,517   | 603,777   | 2,322,564 |
| 1943.....                  | 4,907,475 | 300,997                  | 300,579   | 601,576   | 5,509,051 |
| 1945.....                  | 4,652,841 | 370,875                  | 334,261   | 705,136   | 5,357,977 |
| 1946.....                  | 2,229,674 | 476,234                  | 391,261   | 867,495   | 3,097,169 |
| 1947.....                  | 1,762,472 | 625,539                  | 454,477   | 1,080,016 | 2,842,488 |
| 1948.....                  | 1,799,404 | 775,814                  | 545,396   | 1,321,210 | 3,120,614 |
| Percentage Distribution    |           |                          |           |           |           |
| 1937.....                  | 40.4      | 32.7                     | 26.9      | 59.6      | 100.0     |
| 1939.....                  | 46.4      | 28.8                     | 24.8      | 53.6      | 100.0     |
| 1941.....                  | 74.0      | 13.4                     | 12.6      | 26.0      | 100.0     |
| 1943.....                  | 89.1      | 5.5                      | 5.4       | 10.9      | 100.0     |
| 1945.....                  | 86.8      | 6.9                      | 6.3       | 13.2      | 100.0     |
| 1946.....                  | 72.0      | 15.4                     | 12.6      | 28.0      | 100.0     |
| 1947.....                  | 62.0      | 22.0                     | 16.0      | 38.0      | 100.0     |
| 1948.....                  | 57.7      | 24.8                     | 17.5      | 42.3      | 100.0     |
| Index of Change (1939=100) |           |                          |           |           |           |
| 1937.....                  | 77.8      | 101.4                    | 97.3      | 99.5      | 89.4      |
| 1939.....                  | 100.0     | 100.0                    | 100.0     | 100.0     | 100.0     |
| 1941.....                  | 300.9     | 87.7                     | 96.0      | 91.6      | 188.7     |
| 1943.....                  | 859.2     | 84.8                     | 98.7      | 91.2      | 447.6     |
| 1945.....                  | 814.6     | 104.5                    | 109.7     | 106.9     | 435.4     |
| 1946.....                  | 390.4     | 134.2                    | 128.5     | 131.5     | 251.7     |
| 1947.....                  | 308.6     | 176.3                    | 149.2     | 163.8     | 231.0     |
| 1948.....                  | 315.0     | 218.6                    | 179.1     | 200.3     | 253.6     |

**Combined Debt.**—Direct and indirect debt of all governments increased about \$318,000,000 or 1.5 p.c. from 1945 to 1949. A decrease of \$381,000,000 in combined direct debt was offset by an increase in indirect debt of \$700,000,000. An examination of the component parts reveals that the direct debt of the Federal Government decreased \$790,000,000 and that of combined provincial and municipal governments increased about \$320,000,000.

### **Combined Federal, Provincial and Municipal Direct and Indirect Debt, 1945-49**

NOTE.—Figures are for fiscal years ended nearest to Dec. 31.

| Item                                               | 1945              | 1946              | 1947              | 1948              | 1949                          |
|----------------------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------------------|
|                                                    | \$'000            | \$'000            | \$'000            | \$'000            | \$'000                        |
| <b>Direct Debt—</b>                                |                   |                   |                   |                   |                               |
| Federal.....                                       | 18,089,359        | 18,048,660        | 17,631,616        | 17,460,635        | 17,299,664                    |
| Provincial.....                                    | 1,804,335         | 1,817,524         | 1,746,824         | 1,820,191         | 1,941,921 <sup>P</sup>        |
| Municipal.....                                     | 946,263           | 936,835           | 980,550           | 1,009,193         | 1,128,926                     |
| Totals.....                                        | 20,839,957        | 20,803,019        | 20,358,990        | 20,290,019        | 20,370,511 <sup>P</sup>       |
| Less Inter-governmental Debt                       | 239,199           | 231,055           | 136,318           | 123,841           | 151,054 <sup>P</sup>          |
| <b>Combined Direct Debt....</b>                    | <b>20,600,758</b> | <b>20,571,964</b> | <b>20,222,672</b> | <b>20,166,178</b> | <b>20,219,457<sup>P</sup></b> |
| <b>Indirect Debt—</b>                              |                   |                   |                   |                   |                               |
| Federal.....                                       | 592,810           | 621,058           | 603,468           | 654,803           | 729,756                       |
| Provincial.....                                    | 175,549           | 220,459           | 471,599           | 564,509           | 737,673 <sup>P</sup>          |
| Municipal.....                                     | 45,865            | 45,994            | 45,574            | 47,006            | 46,249                        |
| Totals.....                                        | 814,224           | 887,511           | 1,120,641         | 1,266,318         | 1,513,678 <sup>P</sup>        |
| Less Inter-governmental Debt                       | 22,656            | 21,710            | 21,094            | 22,377            | 22,329 <sup>P</sup>           |
| <b>Combined Indirect Debt..</b>                    | <b>791,568</b>    | <b>865,801</b>    | <b>1,099,547</b>  | <b>1,243,941</b>  | <b>1,491,349<sup>P</sup></b>  |
| <b>Grand Totals, Direct and Indirect Debt.....</b> | <b>21,392,326</b> | <b>21,437,765</b> | <b>21,322,219</b> | <b>21,410,119</b> | <b>21,710,806<sup>P</sup></b> |

### **Finances of the Federal Government**

Federal Government accounts for the fiscal year ended Mar. 31, 1951, showed a surplus of revenue over expenditure amounting to \$211,300,000 compared with a surplus of \$131,500,000 for the previous fiscal year. Revenue increased reversing the trend of the past four years while expenditure, which reached its peak in 1943-44 and reversed its declining trend in 1949-50 showed a further increase.

One of the most interesting aspects of federal finance to the ordinary citizen is the growth in the net debt of Canada. The following table is of particular interest since it shows the trend from Confederation down to the latest year, 1951. At Confederation the total net debt of Canada was only \$76,000,000 and represented \$21.58 per head of the population. The two world wars caused staggering increases; the net debt which was \$336,000,000 in 1914 increased to \$2,341,000,000 in 1921, or from \$42.64 per capita to \$266.37 per capita. By the end of World War II in 1946, net debt reached \$13,421,000,000 or \$1,090.55 per head of the population. The Budget surpluses of subsequent years reduced the net debt in 1951 to \$816.11 per head of the population.



Grading hundreds of acres was the first phase in transforming Ottawa's Uplands Airport into the largest airport in Canada and one of the most extensive in the world. This vast project, involving the construction of entirely new facilities, will become a commercial air terminus as well as a fighter base and will cost the Federal Government \$18,000,000.

### Finances of the Federal Government, Years Ended Mar. 31, 1868-1951

| Year      | Total Revenue | Per Capita Revenue <sup>1</sup> | Total Expenditure          | Per Capita Expenditure <sup>1</sup> | Net Debt at End of Year | Net Debt Per Capita <sup>2</sup> |
|-----------|---------------|---------------------------------|----------------------------|-------------------------------------|-------------------------|----------------------------------|
|           | \$            | \$                              | \$                         | \$                                  | \$                      | \$                               |
| 1868..... | 13,687,928    | 3·95                            | 14,071,689                 | 4·06                                | 75,757,135              | 21·58                            |
| 1871..... | 19,375,037    | 5·34                            | 19,293,478                 | 5·32                                | 77,706,518              | 21·06                            |
| 1881..... | 29,635,298    | 6·96                            | 33,796,643                 | 7·94                                | 155,395,780             | 35·93                            |
| 1891..... | 38,579,311    | 8·07                            | 40,793,208                 | 8·54                                | 257,809,031             | 49·21                            |
| 1901..... | 52,516,333    | 9·91                            | 57,982,866                 | 10·94                               | 238,480,004             | 49·99                            |
| 1911..... | 117,884,328   | 16·87                           | 122,861,250 <sup>3</sup>   | 17·58                               | 340,042,052             | 47·18                            |
| 1921..... | 436,292,184   | 50·99                           | 528,302,513 <sup>3</sup>   | 61·75                               | 2,340,878,984           | 266·37                           |
| 1931..... | 357,720,435   | 35·04                           | 441,568,413 <sup>3</sup>   | 43·26                               | 2,261,611,937           | 217·97                           |
| 1939..... | 502,171,354   | 45·03                           | 553,063,098 <sup>3</sup>   | 49·60                               | 3,152,559,314           | 279·80                           |
| 1940..... | 562,093,459   | 49·89                           | 680,793,792 <sup>3</sup>   | 60·42                               | 3,271,259,647           | 287·43                           |
| 1941..... | 872,169,645   | 76·63                           | 1,249,601,446 <sup>3</sup> | 109·80                              | 3,648,691,449           | 317·08                           |
| 1942..... | 1,488,536,343 | 129·36                          | 1,885,066,055 <sup>3</sup> | 163·82                              | 4,045,221,161           | 347·11                           |
| 1943..... | 2,249,496,177 | 193·02                          | 4,387,124,118 <sup>3</sup> | 376·45                              | 6,182,849,101           | 523·44                           |
| 1944..... | 2,765,017,713 | 234·09                          | 5,322,253,505 <sup>3</sup> | 450·58                              | 8,740,084,893           | 729·86                           |
| 1945..... | 2,687,334,799 | 224·41                          | 5,245,611,924 <sup>3</sup> | 438·05                              | 11,298,362,018          | 932·29                           |
| 1946..... | 3,013,185,074 | 248·63                          | 5,136,228,505 <sup>3</sup> | 423·82                              | 13,421,405,449          | 1,090·55                         |
| 1947..... | 3,007,876,313 | 244·40                          | 2,634,227,412 <sup>3</sup> | 214·04                              | 13,047,756,548          | 1,037·02                         |
| 1948..... | 2,871,746,110 | 228·24                          | 2,195,626,453 <sup>3</sup> | 174·51                              | 12,371,636,893          | 960·31                           |
| 1949..... | 2,771,395,075 | 215·12                          | 2,175,892,332 <sup>3</sup> | 168·90                              | 11,776,134,152          | 892·06                           |
| 1950..... | 2,580,140,615 | 190·43                          | 2,448,615,662 <sup>3</sup> | 180·72                              | 11,644,609,199          | 841·07                           |
| 1951..... | 3,112,535,948 | 224·81                          | 2,901,241,698 <sup>3</sup> | 209·55                              | 11,433,314,948          | 816·11                           |

<sup>1</sup> The basis of calculation is the estimated population figure as at June 1 of the immediately preceding year.

<sup>2</sup> The basis of calculation is the estimated population figure as at June 1 of same year.

<sup>3</sup> Includes non-active advances to railways and transfers from active to non-active assets.



# **Summary of Total Revenues and Expenditures, Years Ended Mar. 31, 1947-51**

| Item                                                               | 1947                 | 1948                | 1949                | 1950                | 1951                   |
|--------------------------------------------------------------------|----------------------|---------------------|---------------------|---------------------|------------------------|
|                                                                    | \$'000               | \$'000              | \$'000              | \$'000              | \$'000                 |
| <b>Revenues</b>                                                    |                      |                     |                     |                     |                        |
| Customs Import Duties.....                                         | 237,355              | 293,012             | 222,975             | 225,878             | 295,722                |
| Excise Duties.....                                                 | 196,044              | 196,794             | 204,652             | 220,565             | 241,046                |
| Income Tax.....                                                    | 939,458 <sup>1</sup> | 1,059,848           | 1,297,999           | 1,272,650           | 1,513,136              |
| Excess Profits Tax.....                                            | 442,497 <sup>1</sup> | 227,031             | 44,792              | -1,788              | 10,141                 |
| Sales Tax.....                                                     | 298,228              | 383,012             | 390,174             | 415,222             | 470,627                |
| War Exchange Tax.....                                              | 338                  |                     |                     |                     |                        |
| Other taxes.....                                                   | 313,741              | 292,378             | 275,550             | 190,590             | 254,678                |
| <b>Totals, Revenues from Taxation</b>                              | <b>2,427,661</b>     | <b>2,452,075</b>    | <b>2,436,142</b>    | <b>2,323,117</b>    | <b>2,785,350</b>       |
| Non-tax revenues.....                                              | 160,870              | 177,771             | 212,948             | 205,599             | 233,348                |
| <b>Totals, Ordinary Revenues....</b>                               | <b>2,588,531</b>     | <b>2,629,846</b>    | <b>2,649,090</b>    | <b>2,528,716</b>    | <b>3,018,698</b>       |
| Special receipts and other credits.                                | 419,345              | 241,900             | 122,305             | 51,424              | 93,838                 |
| <b>Totals, Revenues.....</b>                                       | <b>3,007,876</b>     | <b>2,871,746</b>    | <b>2,771,395</b>    | <b>2,580,140</b>    | <b>3,112,536</b>       |
| <b>Expenditures</b>                                                |                      |                     |                     |                     |                        |
| Ordinary expenditures.....                                         | 1,236,235            | 1,380,002           | 1,573,450           | 1,701,260           | 2,680,499 <sup>4</sup> |
| Capital expenditures.....                                          | 11,200               | 15,656              | 18,473              | 22,924              | 15,594                 |
| War, demobilization and recon-<br>version expenditures (special).. | 1,314,798            | 634,421             | 425,574             | 468,607             | "                      |
| Other special expenditures.....                                    | 31,926 <sup>2</sup>  | 63,141 <sup>3</sup> | 34,813 <sup>2</sup> | 37,928 <sup>2</sup> | 114,503                |
| Government-owned enterprises...                                    | 10,682               | 18,695              | 39,663              | 52,361              | 8,535                  |
| Other charges.....                                                 | 29,386               | 83,711              | 83,919              | 165,536             | 82,111                 |
| <b>Totals, Expenditures.....</b>                                   | <b>2,634,227</b>     | <b>2,195,626</b>    | <b>2,175,892</b>    | <b>2,448,616</b>    | <b>2,901,242</b>       |
| <b>Deficit or Surplus.....</b>                                     | <b>+373,649</b>      | <b>+676,120</b>     | <b>+595,503</b>     | <b>+131,524</b>     | <b>+211,294</b>        |

<sup>1</sup> Excludes refundable portion. Canadian Wheat Board amounting to \$20,562,264 in 1947, \$4,454,250 in 1949, \$4,470,531 in 1950 and \$2,535,942 in 1951.

<sup>2</sup> Includes deficits in certain special accounts of the Canadian Wheat Board amounting to \$20,562,264 in 1947, \$4,454,250 in 1949, \$4,470,531 in 1950 and \$2,535,942 in 1951.

<sup>3</sup> Includes \$31,450,498 for deficits in certain special

accounts of the Canadian Wheat Board and \$13,963,218 for subsidy payments on oats and barley used as feed for live stock.

<sup>4</sup> War demobilization and reconversion expenditures included with ordinary expenditures.

Before grading was done on the Uplands Airport, samples of soils were tested by Department of Transport technicians to determine the amount of compaction required.



Revenue from taxation accounted for 89.5 p.c. of total revenues in 1950-51, compared with 90 p.c. in 1949-50. As a result of higher personal income tax rates, revenue from income taxes, sustained by the buoyant condition of the national economy, increased by \$240,486,000 over the previous year. Non-tax revenues were up \$27,749,000 compared with 1949-50.

Ordinary expenditures increased \$979,239,000 partly as the result of the inclusion of "demobilization and reconversion" expenditures which formerly were shown separately.

Some of the major items of ordinary expenditures were: interest on the public debt, which decreased from \$439,800,000 in 1949-50 to \$425,217,500 in 1950-51; old age pensions, which increased from \$93,200,000 to \$103,200,000; family allowances, which increased from \$297,500,000 to \$309,500,000; and expenditures by the Department of National Defence, which increased from \$14,440,000 to \$587,000,000. The latter figure includes expenditures previously classed as "demobilization and reconversion" expenditures and reflects as well the increased tempo of defence expenditures.

**The 1951-52 Budget.**—The Budget for the fiscal year ending Mar. 31, 1952, presented to Parliament on Apr. 10, 1951, proposed a number of tax changes designed to provide the additional revenue required to meet growing defence expenditures. A defence surtax of 20 p.c. was levied on personal incomes effective from July 1, 1951, and a similar surtax of 20 p.c. was levied on the income of corporations in excess of \$10,000 effective Jan. 1, 1951. The rate of the sales tax was increased from 8 p.c. to 10 p.c. and the rate of excise tax on all articles previously subject to a tax of 15 p.c. was increased to 25 p.c. A tax of 15 p.c. was levied on cooking stoves using other than solid fuels, and on refrigerators and washing machines. The excise tax on cigarettes was increased from 2 cts. for five cigarettes to 2-3/4 cts. for five cigarettes, and the excise tax on manufactured tobacco was increased from 2 cts. per oz. to 5 cts. per oz. The tax on cigarette papers and tubes was repealed and the tax on candy, confectionery and chewing gum, was reduced from 30 p.c. to 15 p.c.

**Borrowings.**—During the fiscal year ended Mar. 31, 1951, the Federal Government reduced its outstanding net debt by \$211,294,251. Total redemption of debt during the year, excluding the recurring issues of treasury bills, amounted to \$3,880,994,513, of which \$3,299,969,592 was financed through renewals or conversions, and \$462,024,008 was raised by the sale of new issues to individuals for cash. Such new issues consisted of \$200,000,000 of 7/8 p.c. Deposit Certificates issued Aug. 30, 1950, and maturing Feb. 28, 1951; \$261,993,600 was raised by the sale of a new issue of 2-3/4 p.c. Canada Savings Bonds, Series V, for cash.

**Income Tax.**—The Budget of March 1949 revised the income tax structure for both individuals and corporations. Basic exemptions were raised to \$1,000 for single persons and \$2,000 for married persons, and exemptions for family allowance dependants were raised to \$150 and for other dependants to \$400. The tax rate on taxable income ranged from 15 p.c. on the first \$1,000 to 80 p.c. on taxable income in excess of \$400,000. At the same time, the point at which investment income became liable to the 4 p.c. surtax was raised to \$2,400. This basic tax table, which marked the post-war low, remained unchanged until the Budget of April 1951. At that time a defence





*Canada's Parliament Buildings, high above the river from which Ottawa got its name. To the north, across the river, is the city of Hull.*

surcharge of 20 p.c., effective July 1, 1951, had the effect of raising the tax payable for the calendar year 1951 by 10 p.c.

In March 1949, the income tax on corporations was changed to 10 p.c. of profits up to \$10,000 and 33 p.c. of profits in excess of \$10,000. Effective Sept. 1, 1950, these rates were increased to 15 p.c. and 38 p.c., respectively; and effective January 1951, a defence surcharge of 20 p.c. was levied applicable only to income taxed at the 38 p.c. rate.

***Number of Taxpayers, Total Income and Tax Collected Thereon, by Income Classes, 1949***

| Income Class        | Taxpayers        | Total Income         | Total Tax          |
|---------------------|------------------|----------------------|--------------------|
|                     | No.              | \$                   | \$                 |
| Below \$ 1,000..... | 5,450            | 2,570,000            | 218,000            |
| \$1,000— 2,000..... | 740,070          | 1,096,146,000        | 46,984,000         |
| 2,000— 3,000.....   | 848,960          | 2,118,146,000        | 87,433,000         |
| 3,000— 4,000.....   | 368,090          | 1,247,040,000        | 66,503,000         |
| 4,000— 5,000.....   | 117,040          | 516,696,000          | 38,462,000         |
| 5,000— 10,000.....  | 113,570          | 748,530,000          | 83,717,000         |
| Over \$10,000.....  | 38,790           | 702,138,000          | 177,672,000        |
| <b>Totals.....</b>  | <b>2,231,970</b> | <b>6,431,266,000</b> | <b>500,989,000</b> |



## Number of Taxpayers, Total Income and Tax Collected Thereon, by Occupational Classes, 1949

| Class                     | Taxpayers        | Total Income         | Total Tax          |
|---------------------------|------------------|----------------------|--------------------|
|                           | No.              | \$                   | \$                 |
| Primary producers.....    | 56,150           | 214,307,000          | 19,298,000         |
| Professionals.....        | 23,180           | 161,010,000          | 28,202,000         |
| Employees.....            | 1,947,340        | 5,042,344,000        | 310,417,000        |
| Salesmen.....             | 20,130           | 86,304,000           | 8,627,000          |
| Business proprietors..... | 131,000          | 647,554,000          | 87,160,000         |
| Financial.....            | 47,170           | 257,845,000          | 44,315,000         |
| Estates.....              | 3,000            | 4,702,000            | 730,000            |
| Deceased.....             | 3,450            | 15,566,000           | 2,128,000          |
| Unclassified.....         | 550              | 1,634,000            | 112,000            |
| <b>Totals.....</b>        | <b>2,231,970</b> | <b>6,431,266,000</b> | <b>500,989,000</b> |

Increasing tax rates during a period of rapidly rising income has resulted in the heavy tax collections that are such a marked feature of current revenue.

### Collections under the Income Tax Act, Years Ended Mar. 31, 1942-51

| Year      | General Income Tax |              | Non-Resident Tax | Gift Tax  | Tax on Private Companies | Total Income Tax           |
|-----------|--------------------|--------------|------------------|-----------|--------------------------|----------------------------|
|           | Individuals        | Corporations |                  |           |                          |                            |
|           | \$                 | \$           | \$               | \$        | \$                       | \$                         |
| 1942..... | 295,874,285        | 185,835,699  | 28,268,775       | 264,258   | —                        | 510,243,017                |
| 1943..... | 533,915,059        | 347,969,723  | 28,080,797       | 223,093   | —                        | 910,188,672                |
| 1944..... | 809,570,762        | 311,378,714  | 26,943,193       | 1,546,633 | —                        | 1,151,757,035 <sup>1</sup> |
| 1945..... | 763,896,322        | 276,403,849  | 28,599,137       | 532,599   | —                        | 1,072,758,068 <sup>1</sup> |
| 1946..... | 689,506,763        | 217,833,540  | 28,309,619       | 770,369   | —                        | 937,729,273 <sup>1</sup>   |
| 1947..... | 691,989,231        | 196,819,253  | 30,136,146       | 1,538,888 | 41,972,700               | 963,458,245 <sup>1</sup>   |
| 1948..... | 656,873,403        | 351,535,006  | 35,889,028       | 2,268,845 | 12,596,108               | 1,059,848,357 <sup>1</sup> |
| 1949..... | 760,151,969        | 488,549,610  | 43,445,764       | 1,632,930 | 3,440,514                | 1,297,999,404 <sup>1</sup> |
| 1950..... | 619,263,363        | 602,072,622  | 47,474,846       | 2,089,821 | 1,120,510                | 1,272,650,191 <sup>1</sup> |
| 1951..... | 648,662,654        | 711,576,735  | 61,610,319       | 3,118,019 | 87,619,776               | 1,513,135,510 <sup>1</sup> |

<sup>1</sup> Includes deferred tax.

## Provincial Finance

When comparing total revenue, expenditure or debt of all provinces for 1949 with previous years, it should be kept in mind that the 1949 figures include the Province of Newfoundland for the first time.

There has been an impressive increase in both revenues and expenditures of all provincial governments during the past decade. In 1939 most provincial governments derived their largest revenues from taxes (chiefly corporation taxes and gasoline sales taxes), motor-vehicle licences and liquor-control revenues. To-day, while taxes from all sources are still the greatest revenue producer, privileges, licences and permits represent the second largest source of net general revenue, followed by Federal Government payments and liquor-control revenues. The emphasis in spending has also changed. In 1939 the main expenditures in order of size were for social welfare, debt charges (excluding debt retirement), education, health and transportation. In 1949 the heaviest item of expenditure was transportation, followed by education, health, social welfare and natural resources.

Total direct and indirect debt increased \$285,000,000 in 1949 over 1948 and about \$484,000,000 in the past decade, a rate equal to \$3 per capita (\$195 to \$198). The percentage of total provincial government bonds outstanding that are payable in Canada only continues to increase—a trend that has been evident for a number of years.

### Gross General Revenues and Expenditures of Provincial Governments, by Provinces, 1947-49

NOTE.—Figures are for fiscal years ended nearest Dec. 31.

| Province             | Gross General Revenues |                |                   | Gross General Expenditures |                |                   |
|----------------------|------------------------|----------------|-------------------|----------------------------|----------------|-------------------|
|                      | 1947                   | 1948           | 1949 <sup>p</sup> | 1947                       | 1948           | 1949 <sup>p</sup> |
|                      | \$'000                 | \$'000         | \$'000            | \$'000                     | \$'000         | \$'000            |
| Newfoundland.....    | ...                    | ...            | 19,944            | ...                        | ...            | 24,542            |
| Prince Edward Island | 5,365                  | 5,697          | 6,375             | 5,092                      | 5,086          | 6,418             |
| Nova Scotia.....     | 38,798                 | 40,253         | 44,426            | 29,306                     | 35,371         | 44,301            |
| New Brunswick.....   | 33,791                 | 34,026         | 36,885            | 27,217                     | 32,176         | 36,997            |
| Quebec.....          | 219,269                | 231,508        | 244,548           | 174,648 <sup>r</sup>       | 197,622        | 212,919           |
| Ontario.....         | 255,876                | 254,901        | 280,914           | 211,237                    | 258,059        | 291,425           |
| Manitoba.....        | 41,508                 | 44,107         | 48,663            | 33,343                     | 39,182         | 43,340            |
| Saskatchewan.....    | 61,907                 | 66,226         | 72,690            | 56,287                     | 60,729         | 67,961            |
| Alberta.....         | 54,626                 | 71,347         | 98,709            | 38,581                     | 47,444         | 52,188            |
| British Columbia.... | 81,672                 | 119,669        | 145,090           | 79,343                     | 113,327        | 156,120           |
| <b>Totals.....</b>   | <b>792,812</b>         | <b>867,734</b> | <b>998,244</b>    | <b>655,054<sup>r</sup></b> | <b>788,996</b> | <b>936,211</b>    |

*Provincial foresters preparing a base map. Aerial photography has transformed forest survey work into a highly skilled and specialized undertaking. Costs have been reduced and accuracy and usefulness of the results immeasurably increased.*



## Net General Revenues and Net Combined General and Capital Expenditures of Provincial Governments, 1947-49

| Province             | Net General Revenues |                |                   | Net General and Capital Expenditures |                |                   |
|----------------------|----------------------|----------------|-------------------|--------------------------------------|----------------|-------------------|
|                      | 1947                 | 1948           | 1949 <sup>p</sup> | 1947                                 | 1948           | 1949 <sup>p</sup> |
|                      | \$'000               | \$'000         | \$'000            | \$'000                               | \$'000         | \$'000            |
| Newfoundland.....    | ...                  | ...            | 17,424            | ...                                  | ...            | 26,077            |
| Prince Edward Island | 4,658                | 4,730          | 5,092             | 6,305                                | 5,915          | 6,743             |
| Nova Scotia.....     | 32,389               | 32,667         | 34,249            | 35,316                               | 44,346         | 52,703            |
| New Brunswick.....   | 28,844               | 28,453         | 29,431            | 34,130                               | 42,484         | 40,037            |
| Quebec.....          | 193,756              | 203,258        | 207,416           | 189,862 <sup>r</sup>                 | 234,027        | 198,028           |
| Ontario.....         | 223,213              | 220,024        | 235,421           | 203,539                              | 250,738        | 280,550           |
| Manitoba.....        | 34,004               | 35,902         | 38,041            | 27,963                               | 35,897         | 38,830            |
| Saskatchewan.....    | 53,312               | 56,332         | 61,287            | 52,539                               | 55,375         | 61,473            |
| Alberta.....         | 47,510               | 62,957         | 88,547            | 43,989                               | 55,938         | 58,913            |
| British Columbia.... | 72,004               | 100,678        | 124,324           | 85,032                               | 109,550        | 163,326           |
| <b>Totals.....</b>   | <b>689,690</b>       | <b>745,001</b> | <b>841,232</b>    | <b>678,675<sup>r</sup></b>           | <b>834,270</b> | <b>926,680</b>    |

### Analysis of Net General Revenues of Provincial Governments, 1948 and 1949

| Source                                   | 1948    | 1949 <sup>p</sup> | Source                                | 1948           | 1949 <sup>p</sup>   |
|------------------------------------------|---------|-------------------|---------------------------------------|----------------|---------------------|
|                                          | \$'000  | \$'000            |                                       | \$'000         | \$'000              |
| Taxes.....                               | 372,331 | 418,237           | Other revenue.....                    | 923            | 1,302               |
| Privileges, Licences and Permits—        |         |                   | Sub-Totals.....                       | 741,857        | 838,405             |
| Motor-vehicles.....                      | 50,573  | 58,198            | Non-revenue and surplus receipts..... | 3,144          | 2,827               |
| Other.....                               | 85,797  | 119,827           | <b>Totals.....</b>                    | <b>745,001</b> | <b>841,232</b>      |
| Sales and services.....                  | 20,046  | 20,082            |                                       |                |                     |
| Fines and penalties.....                 | 2,087   | 2,230             | Summary of Liquor Control Revenue—    |                |                     |
| Other Governments—                       |         |                   | Taxes.....                            | 10,349         | 1,477 <sup>1</sup>  |
| Dominion-Provincial Taxation Agreement.. | 84,272  | 81,421            | Permits.....                          | 16,132         | 25,932 <sup>1</sup> |
| Dominion subsidies....                   | 16,965  | 25,541            | Fines and penalties....               | 381            | 715                 |
| Municipalities.....                      | 1,727   | 865               | Profits.....                          | 102,521        | 106,803             |
| Government enterprises..                 | 107,136 | 110,702           | Confiscations.....                    | 3              | 37                  |

<sup>1</sup> Certain levies, amounting to about \$9,000,000, shown under "Taxes" in 1948 are included under "Permits" in 1949.

### Analysis of Net Combined General and Capital Expenditures of Provincial Governments, 1948 and 1949

| Function                                      | 1948    | 1949 <sup>p</sup> | Function                                     | 1948           | 1949 <sup>p</sup> |
|-----------------------------------------------|---------|-------------------|----------------------------------------------|----------------|-------------------|
|                                               | \$'000  | \$'000            |                                              | \$'000         | \$'000            |
| General government.....                       | 34,280  | 33,611            | Local government planning and development..  | 1,270          | 1,513             |
| Protection of persons and property.....       | 34,929  | 44,923            | Debt charges.....                            | 88,131         | 101,754           |
| Transportation and communications.....        | 254,650 | 253,736           | Contributions to Municipal Governments—      |                |                   |
| Health and Social Welfare—                    |         |                   | Shared-revenue.....                          | 6,659          | 11,110            |
| Health.....                                   | 102,361 | 144,119           | Subsidies.....                               | 6,131          | 3,766             |
| Social welfare.....                           | 61,596  | 80,630            | Contributions to government enterprises..... | 9,934          | 12,958            |
| Recreational and cultural services.....       | 4,888   | 5,563             | Other expenditures.....                      | 6,452          | 6,126             |
| Education.....                                | 141,730 | 159,243           | Sub-Totals.....                              | 832,486        | 924,647           |
| Natural resources and primary industries..... | 75,121  | 60,480            | Non-expend and surplus payments.....         | 1,784          | 2,034             |
| Trade and industrial development.....         | 4,354   | 5,115             | <b>Totals.....</b>                           | <b>834,270</b> | <b>926,681</b>    |



**Details of Direct and Indirect Debt of Provincial Governments (less Sinking Funds), 1948 and 1949**

| Detail                                | 1948             | 1949 <sup>1,p</sup> | Detail                                | 1948             | 1949 <sup>1,p</sup> |
|---------------------------------------|------------------|---------------------|---------------------------------------|------------------|---------------------|
| \$'000                                | \$'000           | \$'000              | \$'000                                | \$'000           | \$'000              |
| <b>Direct Debt—</b>                   |                  |                     | <b>Indirect Debt—</b>                 |                  |                     |
| Bonded debt.....                      | 1,766,978        | 1,948,872           | Guaranteed bonds....                  | 502,423          | 674,953             |
| Less sinking funds..                  | 264,059          | 341,901             | Less sinking funds..                  | 3,463            | 3,402               |
| Net bonded debt....                   | 1,502,919        | 1,606,971           | Net guaranteed bonds.                 | 498,960          | 671,551             |
| Treasury Bills (held by)—             |                  |                     | Guaranteed bank loans                 | 16,002           | 15,872              |
| Federal Government                    | 97,481           | 93,703              | Other Guarantees—                     |                  |                     |
| Others.....                           | 39,872           | 39,384              | Municipal Improvement Assistance      |                  |                     |
| Totals, Treasury Bills.....           | 137,353          | 133,087             | Act loans.....                        | 4,723            | 4,470               |
| Saving certificates and deposits..... | 67,020           | 68,405              | Other.....                            | 44,824           | 40,755              |
| Temporary loans and overdrafts.....   | 7,382            | 9,998               | Totals, Other Guarantees.....         | 49,547           | 45,225              |
| Bonds due.....                        | 439              | 107                 | <b>Totals, Net Indirect Debt.....</b> | <b>564,509</b>   | <b>732,648</b>      |
| Bond interest due....                 | 958              | 857                 | <b>Grand Totals.....</b>              | <b>2,384,700</b> | <b>2,669,621</b>    |
| Accounts and other payables.....      | 84,501           | 96,257              |                                       |                  |                     |
| Accrued expenditures.                 | 19,619           | 21,291              |                                       |                  |                     |
| <b>Totals, Net Direct Debt.....</b>   | <b>1,820,191</b> | <b>1,936,973</b>    |                                       |                  |                     |

<sup>1</sup> Excludes Newfoundland for comparative purposes.

**Direct and Indirect Debt of Provincial Governments (less Sinking Funds), 1948 and 1949**

| Province                  | Direct Debt      |                   | Indirect Debt  |                   |
|---------------------------|------------------|-------------------|----------------|-------------------|
|                           | 1948             | 1949 <sup>p</sup> | 1948           | 1949 <sup>p</sup> |
|                           | \$'000           | \$'000            | \$'000         | \$'000            |
| Newfoundland.....         | ...              | 4,949             | ...            | 5,025             |
| Prince Edward Island..... | 13,674           | 14,734            | 30             | 20                |
| Nova Scotia.....          | 118,882          | 138,958           | 2,305          | 3,854             |
| New Brunswick.....        | 127,453          | 141,271           | 8,260          | 10,205            |
| Quebec.....               | 385,093          | 374,930           | 284,053        | 298,987           |
| Ontario.....              | 627,542          | 681,679           | 259,226        | 394,441           |
| Manitoba.....             | 81,246           | 97,839            | 1,040          | 841               |
| Saskatchewan.....         | 151,505          | 151,037           | 652            | 654               |
| Alberta.....              | 133,827          | 134,704           | 2,346          | 3,161             |
| British Columbia.....     | 180,969          | 201,821           | 6,597          | 20,485            |
| <b>Totals.....</b>        | <b>1,820,191</b> | <b>1,941,921</b>  | <b>564,509</b> | <b>737,673</b>    |

**Gross Provincial Bonded Debt, by Currency of Payments, 1948 and 1949**

| Payable in—                                | 1948             | 1949 <sup>1,p</sup> |
|--------------------------------------------|------------------|---------------------|
|                                            | \$'000           | \$'000              |
| Canada only.....                           | 1,210,291        | 1,356,933           |
| London (England) only.....                 | 29,958           | 27,447              |
| London (England) and Canada.....           | 8,721            | 7,582               |
| New York and Canada.....                   | 301,787          | 346,182             |
| London (England), New York and Canada..... | 216,221          | 210,728             |
| <b>Totals.....</b>                         | <b>1,766,978</b> | <b>1,948,872</b>    |

<sup>1</sup> Excludes Newfoundland for comparative purposes.

## Municipal Finance

In 1949 local government was carried on in Canada by 4,099 incorporated municipalities, urban and rural, many of which supervised special boards, areas, units and districts organized for such limited purposes as the provision of utility, health and other services, or acted jointly through such bodies. In most provinces the municipalities raised a substantial part of the money spent on education. They operated under charters or Acts of the provincial governments to which, in varying degrees, they are accountable. Sparsely settled areas without municipal organization are governed by the provinces.

As with other governing bodies, most Canadian municipalities borrowed rather freely during the boom period of 1900-12, and again during the 1920's. In 1924 the gross debenture debt passed the billion-dollar mark, and in 1932 it reached a peak of \$1,384,792,777. Despite borrowing for relief purposes, it then began to decline slowly as capital expenditures were reduced as a result of the depressed economic conditions and closer provincial supervision, and most municipalities continued to meet their debt charges. Improved tax collections coupled with deferment of needed capital expenditures during the War speeded the decline but levelled off in 1946. In 1947 the rate of capital borrowings by municipalities exceeded debt retirement and debenture debt increased. The gross total rose in 1948 and in 1949.

The major source of municipal revenue is direct taxation and taxation revenue is largely derived from levies on the assessed values of real property. Both assessed values and tax rates have been increasing steadily since 1939 with a resultant growth in tax levies. Buoyant economic conditions have resulted in the collection of high percentages of current levies in all provinces.

**Municipal Revenue and Expenditure.**—Estimated municipal revenue for 1949 was \$520,000,000, of which \$370,000,000 or 71.1 p.c. was derived from taxes on real property, \$62,800,000 or 12.1 p.c. from other taxes, and the remaining \$87,200,000 or 16.8 p.c. from other sources, including licences and permits, public utility contributions and provincial subsidies.



Protection by police, especially in the large centres, is one of the most expensive of municipal services. At Montreal, calls for help coming in over a 20-line switchboard are broadcast immediately to patrol cars.

Support of local schools currently requires the largest expenditure by municipal governments. In 1949 the amount spent on that service was \$158,800,000 or 30.5 p.c. of all expenditures. Other services cost \$286,800,000 or 55 p.c. and debt charges, together with provision for debt repayment, \$75,700,000 or 14.5 p.c. Total expenditures were \$521,300,000. In 1939 expenditures of \$329,038,000 were divided as follows: 25 p.c. for school support, 48 p.c. for other services and 27 p.c. for debt charges and debt retirement.

***Municipal Assessed Valuations, Tax Levies, Collections and Receivables, 1941-49, and by Provinces, 1949***

| Year and Province                    | Valuations on which Taxes were Levied | Tax Levies     | Tax Collections (Current and Arrears) | Percentage of Levies to Collections | Total Taxes Receivable and Property Acquired for Taxes |
|--------------------------------------|---------------------------------------|----------------|---------------------------------------|-------------------------------------|--------------------------------------------------------|
|                                      | \$'000                                | \$'000         | \$'000                                |                                     | \$'000                                                 |
| Totals, 1941.....                    | 7,859,415                             | 272,458        | 237,680 <sup>1</sup>                  | 104.6 <sup>1</sup>                  | 237,133                                                |
| Totals, 1942.....                    | 7,892,698                             | 275,983        | 239,110 <sup>1</sup>                  | 105.0 <sup>1</sup>                  | 208,406                                                |
| Totals, 1943.....                    | 7,906,826                             | 278,697        | 298,196                               | 107.0                               | 192,777                                                |
| Totals, 1945.....                    | 8,155,068                             | 291,693        |                                       |                                     | 134,021                                                |
| Totals, 1946 <sup>2</sup> .....      | 5,885,093                             | 230,623        | 235,487                               | 102.1                               | 86,935                                                 |
| Totals, 1947 <sup>2</sup> .....      | 6,237,747                             | 259,941        | 255,748                               | 98.4                                | 79,482                                                 |
| Totals, 1948 <sup>2</sup> .....      | 6,504,665                             | 291,680        | 287,793                               | 98.7                                | 81,386                                                 |
| <b>1949</b>                          |                                       |                |                                       |                                     |                                                        |
| Newfoundland.....                    |                                       | 931            | 845                                   | 90.7                                | 266                                                    |
| Prince Edward Island.....            | 19,493                                | 778            | 762                                   | 97.9                                | 226                                                    |
| Nova Scotia.....                     | 230,951                               | 13,611         | 13,199                                | 97.0                                | 4,218                                                  |
| New Brunswick.....                   | 307,626                               | 11,116         | 10,202                                | 91.8                                | 3,625                                                  |
| Quebec.....                          |                                       |                |                                       |                                     |                                                        |
| Ontario.....                         | 3,980,518                             | 170,379        | 167,154                               | 98.1                                | 21,609                                                 |
| Manitoba.....                        | 572,907                               | 30,424         | 29,223                                | 96.0                                | 9,795                                                  |
| Saskatchewan.....                    | 865,368                               | 35,961         | 33,672                                | 93.6                                | 19,816                                                 |
| Alberta.....                         | 681,802                               | 35,003         | 34,337                                | 98.1                                | 18,679                                                 |
| British Columbia.....                | 573,460                               | 35,935         | 35,292                                | 98.2                                | 9,184                                                  |
| <b>Totals, 1949<sup>2</sup>.....</b> | <b>7,232,125</b>                      | <b>334,138</b> | <b>324,686</b>                        | <b>97.2</b>                         | <b>87,418</b>                                          |

<sup>1</sup> Excludes Quebec cities and towns. available.

<sup>2</sup> Quebec not included, as information not available.

Sidewalk snow-plow in operation at Ottawa.





**Direct and Indirect Liabilities of Municipal Governments (less Sinking Funds), by Provinces, 1947-49**

| Province                  | 1947                |               | 1948                |               | 1949                |               |
|---------------------------|---------------------|---------------|---------------------|---------------|---------------------|---------------|
|                           | Direct              | Indirect      | Direct              | Indirect      | Direct              | Indirect      |
|                           | \$'000              | \$'000        | \$'000              | \$'000        | \$'000              | \$'000        |
| Newfoundland.....         |                     | ..            |                     | ..            | 3,312               | ..            |
| Prince Edward Island..... | 2,179 <sup>1</sup>  | ..            | 2,384 <sup>1</sup>  | ..            | 2,495 <sup>1</sup>  | ..            |
| Nova Scotia.....          | 22,247 <sup>1</sup> | 636           | 26,221 <sup>1</sup> | 612           | 31,736 <sup>1</sup> | 829           |
| New Brunswick.....        | 20,387              | 167           | 26,852              | 201           | 32,854              | 669           |
| Quebec.....               |                     |               |                     |               |                     |               |
| Ontario.....              | 243,445             | 17,856        | 295,143             | 16,517        | 348,568             | 15,907        |
| Manitoba.....             | 42,075              | 8,029         | 42,972              | 7,701         | 46,735              | 8,032         |
| Saskatchewan.....         | 34,070              | ..            | 31,645              | ..            | 35,013              | ..            |
| Alberta.....              | 57,817              | ..            | 65,535              | ..            | 76,364              | ..            |
| British Columbia.....     | 86,786              | 14,440        | 95,016              | 16,251        | 110,162             | 17,040        |
| <b>Totals.....</b>        | <b>509,006</b>      | <b>41,128</b> | <b>585,768</b>      | <b>41,282</b> | <b>687,239</b>      | <b>42,477</b> |
| <b>Grand Totals.....</b>  | <b>550,134</b>      |               | <b>627,050</b>      |               | <b>729,716</b>      |               |

<sup>1</sup> Exclusive of rural schools.

**Municipal Bonded Debt and Sinking Funds, Selected Years 1919-46, and by Provinces, 1932, 1948 and 1949**

| Year      | Gross Bonded Indebtedness of Municipalities | Total Sinking Funds | Province                  | Gross Bonded Indebtedness of Municipalities |                            |                            |
|-----------|---------------------------------------------|---------------------|---------------------------|---------------------------------------------|----------------------------|----------------------------|
|           |                                             |                     |                           | 1932 <sup>1</sup>                           | 1948 <sup>2</sup>          | 1949 <sup>2</sup>          |
|           | \$'000                                      | \$'000              |                           | \$'000                                      | \$'000                     | \$'000                     |
| 1919..... | 729,715                                     | 3                   | Newfoundland.....         | ..                                          | ..                         | 3,001                      |
| 1925..... | 1,015,950                                   | 3                   | Prince Edward Island..... | 2,129                                       | 3,222                      | 3,327                      |
| 1930..... | 1,271,390                                   | 3                   | Nova Scotia.....          | 31,606                                      | 38,010                     | 39,321                     |
| 1935..... | 1,372,026                                   | 267,709             | New Brunswick.....        | 24,753                                      | 30,638                     | 37,076                     |
| 1938..... | 1,302,201                                   | 269,736             | Quebec.....               | 463,614                                     |                            |                            |
| 1939..... | 1,280,856                                   | 272,010             | Ontario.....              | 504,756                                     | 254,248                    | 292,542                    |
| 1940..... | 1,244,001                                   | 259,343             | Manitoba.....             | 92,471                                      | 50,633                     | 55,059                     |
| 1941..... | 1,196,491                                   | 261,459             | Saskatchewan.....         | 59,238                                      | 26,256                     | 30,141                     |
| 1942..... | 1,136,897                                   | 258,064             | Alberta.....              | 76,892                                      | 47,002                     | 63,185                     |
| 1943..... | 1,074,777                                   | 254,864             | British Columbia.....     | 129,333                                     | 122,275                    | 137,618                    |
| 1944..... | 1,006,936                                   | 178,780             |                           |                                             |                            |                            |
| 1945..... | 965,450                                     | 168,365             |                           |                                             |                            |                            |
| 1946..... | 503,426                                     | ..                  | <b>Totals.....</b>        | <b>1,384,792</b>                            | <b>572,284<sup>4</sup></b> | <b>661,270<sup>4</sup></b> |

<sup>1</sup> Debt for rural schools in the Maritimes not included.      <sup>2</sup> Excludes rural schools in Prince Edward Island and Nova Scotia.

<sup>3</sup> Sinking fund totals not available previous to 1934; Alberta showed net debt to 1928.

<sup>4</sup> Does not include Quebec.

## • Banking

**The Bank of Canada.**—The keystone of the Canadian banking structure is the Bank of Canada, incorporated in 1934 as a central bank of issue and rediscount. Its function is "to regulate credit and currency in the best interests of the economic life of the nation, to control and protect the external value of the national monetary unit and to mitigate by its influence fluctuations in the general level of production, trade, prices and employment, so far as may be possible within the scope of monetary action, and generally to promote the economic and financial welfare of the Dominion".

The Bank regulates the statutory cash reserves of the chartered banks, which are required to maintain not less than 5 p.c. of their deposit liabilities payable in Canadian dollars in the form of deposits with, and notes of, the

Bank of Canada. The Bank also acts as the fiscal agent of the Government of Canada and may, by agreement, act as banker or fiscal agent for any province. It manages the public debt and has the sole right to issue notes for circulation in Canada. The Bank is empowered to buy and sell securities on the open market; to discount securities and commercial bills; to fix minimum rates at which it will discount; and to buy and sell bullion and foreign exchange. The bank is managed by a Board of Directors appointed by the Government and composed of a Governor, Deputy Governor and twelve directors, the Deputy Minister of Finance being a member of the Board.

**The Industrial Development Bank.**—The Industrial Development Bank, which commenced operations on Nov. 1, 1944, is a subsidiary of the Bank of Canada but operates as a separate entity. Its function is to supplement the activities of the chartered banks and other lending agencies by supplying the medium and long-term capital needs of small enterprises; the bank does not engage in the business of deposit banking. The capital stock of \$25,000,000 was subscribed by the Bank of Canada. In addition, the Industrial Development Bank may, by the issue of bonds and debentures, borrow up to three times the amount of its paid-up capital stock.

*Loans, Investments and Guarantees of the Industrial Development Bank, by Provinces and Industries, as at Sept. 30, 1951*

| Classification                               | Author-<br>ized   | Out-<br>standing  | Classification                                                    | Author-<br>ized   | Out-<br>standing  |
|----------------------------------------------|-------------------|-------------------|-------------------------------------------------------------------|-------------------|-------------------|
| Province                                     | \$                | \$                | Industrial<br>Enterprise—concl.                                   | \$                | \$                |
| Newfoundland.....                            | —                 | —                 | Paper products (incl.<br>pulp).....                               | 4,337,675         | 4,018,443         |
| P.E. Island.....                             | 54,000            | 34,032            | Printing, publishing<br>and allied industries                     | 706,000           | 438,061           |
| Nova Scotia.....                             | 655,044           | 428,538           | Iron and steel prod-<br>ucts (incl. machin-<br>ery and equipment) | 4,316,606         | 2,395,399         |
| New Brunswick.....                           | 1,103,298         | 951,178           | Transportation<br>equipment.....                                  | 2,028,664         | 999,957           |
| Quebec.....                                  | 20,222,466        | 11,044,824        | Non-ferrous metal<br>products.....                                | 263,500           | 239,667           |
| Ontario.....                                 | 11,648,564        | 8,752,736         | Electrical apparatus<br>and supplies.....                         | 754,000           | 341,671           |
| Manitoba.....                                | 1,449,250         | 742,002           | Non-metallic mineral<br>products.....                             | 2,119,469         | 1,568,258         |
| Saskatchewan.....                            | 2,142,658         | 1,462,492         | Products of petrol-<br>eum and coal.....                          | 1,440,000         | 814,661           |
| Alberta.....                                 | 1,153,200         | 903,164           | Chemical products..                                               | 6,982,310         | 2,240,129         |
| British Columbia and<br>Territories.....     | 6,815,800         | 5,106,267         | Miscellaneous manu-<br>facturing industries                       | 899,500           | 678,780           |
| <b>Totals.....</b>                           | <b>45,244,280</b> | <b>29,425,233</b> | Refrigeration.....                                                | 3,278,608         | 2,663,627         |
| <b>Industrial<br/>Enterprise</b>             |                   |                   | Generation or distri-<br>bution of electricity                    | 95,000            | 27,000            |
| Foods and beverages..                        | 5,472,283         | 3,989,082         | <b>Totals.....</b>                                                | <b>45,244,280</b> | <b>29,425,233</b> |
| Leather products.....                        | 762,500           | 482,759           |                                                                   |                   |                   |
| Textile products (ex-<br>cept clothing)..... | 3,004,361         | 2,557,539         |                                                                   |                   |                   |
| Clothing (textile and<br>fur).....           | 1,511,150         | 926,374           |                                                                   |                   |                   |
| Wood products.....                           | 7,272,654         | 5,043,826         |                                                                   |                   |                   |

**Commercial Banking.**—While the aggregate supply of money is determined by the central bank, it rests with the chartered banks to provide the individual credit requirements of commerce and industry of the public generally. There are ten banks chartered under the Bank Act and only they, and two long-established savings banks, in addition to the Bank of Canada, are legally entitled to call themselves "banks" or to use the word "banking" in connection with their business.



▲  
Main banking room of the new  
Bank of Nova Scotia building  
at Toronto, which was opened  
Sept. 21, 1951.

▲  
The door of the main vault  
weighing 50 tons yet so finely  
balanced that the girl can close  
it with one hand.

The branch bank is perhaps the most distinctive feature of the Canadian system as it exists to-day and for a country such as Canada, vast in area and with a small population, the plan has proved a good one. There has been no bank failure since 1923 and note holders have experienced no losses whatever since 1881.



The ten commercial banks have over 3,400 offices spread out over the country, many located in small villages which would be quite unable to support an independent bank. The head offices of the banks neither take nor lend money—all the banking business is done by the branches, each branch enjoying considerable independence. But the fact that these branches are linked has a very important bearing on the country-wide economic situation.

The primary function of the bank is to provide a safe repository for savings and surplus funds and to furnish credit for carrying on the business of the country. Credit is given in various ways. Direct loans are made, the proceeds of which customers use for purchasing raw materials, paying wages and other operating expenses or for the purchase of goods for resale. Letters of credit are issued to finance the importation of goods. In this way the bank exchanges its well-known and acceptable credit for the less-known credit of its customers. Apart from the deposit and loan facilities provided, the banks render innumerable services to the communities in which they serve.

### Statistics of Chartered Banks, Selected Years, 1930-50

NOTE.—These figures are averages computed from the twelve monthly returns in each year, except in the case of the numbers of branches which are as at Dec. 31.

| Bank and Year | Branches<br>in<br>Canada<br>and<br>Abroad <sup>1</sup> | Total<br>Assets | Liabili-<br>ties to<br>Share-<br>holders | Liabili-<br>ties<br>to the<br>Public | Loans<br>and Dis-<br>counts | Total<br>Deposit<br>Lia-<br>bilities <sup>2</sup> |
|---------------|--------------------------------------------------------|-----------------|------------------------------------------|--------------------------------------|-----------------------------|---------------------------------------------------|
|               | No.                                                    | \$<br>'000,000  | \$<br>'000,000                           | \$<br>'000,000                       | \$<br>'000,000              | \$<br>'000,000                                    |
| 1930.....     | 4,083                                                  | 3,237           | 305                                      | 2,910                                | 2,065                       | 2,517                                             |
| 1939.....     | 3,319                                                  | 3,592           | 279                                      | 3,298                                | 1,244                       | 3,061                                             |
| 1945.....     | 3,106                                                  | 6,743           | 282                                      | 6,439                                | 1,505                       | 6,160                                             |
| 1948.....     | 3,410                                                  | 8,140           | 328                                      | 7,799                                | 2,389                       | 7,403                                             |
| 1949.....     | 3,562                                                  | 8,658           | 333                                      | 8,310                                | 2,618                       | 7,922                                             |
| 1950.....     | 3,784                                                  | 9,015           | 337                                      | 8,660                                | 2,872                       | 8,221                                             |

<sup>1</sup>Includes sub-agencies which numbered 691 in 1950, including 2 outside Canada.

<sup>2</sup>Excluding inter-bank deposits.

tickometer, in opera-  
on at a bank head  
fice, counts remit-  
nces from various  
anches in the dis-  
ict at the rate of 600  
lls a minute.





A bank booth at a country fair—one method of bringing to the attention of the farming community the services offered by the bank. At this particular fair, a tobacco-growing contest was conducted by the bank among the farmers of the area.

### Statistics of Individual Chartered Banks, December 1951

| Bank                            | Branches<br>in<br>Canada<br>and<br>Abroad <sup>1</sup> | Total<br>Assets | Liabili-<br>ties to<br>Share-<br>holders | Liabili-<br>ties to<br>the<br>Public | Loans<br>and Dis-<br>counts | Total<br>Deposit<br>Lia-<br>bilities <sup>2</sup> |
|---------------------------------|--------------------------------------------------------|-----------------|------------------------------------------|--------------------------------------|-----------------------------|---------------------------------------------------|
|                                 | No.                                                    | \$<br>'000,000  | \$<br>'000,000                           | \$<br>'000,000                       | \$<br>'000,000              | \$<br>'000,000                                    |
| Bank of Montreal.....           | 577                                                    | 2,254           | 87                                       | 2,165                                | 671                         | 2,030                                             |
| Bank of Nova Scotia.....        | 394                                                    | 905             | 45                                       | 856                                  | 401                         | 804                                               |
| Bank of Toronto.....            | 236                                                    | 499             | 20                                       | 477                                  | 187                         | 451                                               |
| Provincial Bank of Canada.....  | 339                                                    | 176             | 6                                        | 169                                  | 64                          | 166                                               |
| Canadian Bank of Commerce.....  | 620                                                    | 1,741           | 60                                       | 1,676                                | 715                         | 1,582                                             |
| Royal Bank.....                 | 762                                                    | 2,523           | 87                                       | 2,435                                | 863                         | 2,287                                             |
| Dominion Bank.....              | 165                                                    | 472             | 18                                       | 453                                  | 212                         | 414                                               |
| Banque Canadienne Nationale.... | 550                                                    | 461             | 14                                       | 446                                  | 189                         | 438                                               |
| Imperial Bank of Canada.....    | 224                                                    | 545             | 18                                       | 526                                  | 236                         | 496                                               |
| Barclays Bank (Canada).....     | 4                                                      | 34              | 3                                        | 31                                   | 9                           | 23                                                |
| <b>Totals.....</b>              | <b>3,871</b>                                           | <b>9,610</b>    | <b>358</b>                               | <b>9,234</b>                         | <b>3,547</b>                | <b>8,691</b>                                      |

<sup>1</sup>Includes sub-agencies which numbered 694, including 2 outside Canada. <sup>2</sup>Excluding inter-bank deposits.

In 1951, there were 106 branches of Canadian chartered banks in operation abroad.

**Cheque Payments.**—Business operations consist of innumerable individual transactions, the great majority of which employ money either in the form of currency or cheques drawn against bank deposits. It is estimated that about 80 p.c. of the commercial transactions are financed by cheque, the value of which serves as an excellent index of the business trend at any given time.

The value of cheques cashed in all five economic regions continued to advance during 1950, reaching a new maximum of over \$100,000,000,000. The gain of nearly 15 p.c. over the previous year reflected active economic conditions throughout the year. Industrial production was greater than in any year since the war period and wholesale prices reached record levels. In addition, both employment and labour income were the highest in history and

the value of retail trade also reached a new maximum. Indicative of the continuing high level of business activity, the total of cheques cashed in the first ten months of 1951 was nearly 14 p.c. higher than in the same period of 1950.

The increase in cheques cashed was fairly general throughout the country, 32 of the 34 clearing centres for which comparisons are possible recording increases over 1949. The greatest relative advance occurred in Ontario, followed closely by Quebec, while the Prairie Provinces showed the smallest gain. Cheques cashed in Canada's five largest clearing centres accounted for over 75 p.c. of the Canadian total. The trends of debits in these centres largely determine the regional trends with the exception of the Maritime Provinces. Payments in the two largest centres, Toronto and Montreal, rose 23 p.c. and 18 p.c., respectively, as compared with 1949 and the total for Vancouver was 12 p.c. higher. Winnipeg and Ottawa recorded declines during 1950.

The Canadian aggregate value of cheques cashed has shown a continuous series of increases since 1938, the level reached in 1950 having been far above that of the years prior to the War. The total was 225 p.c. greater than in 1938 and 116 p.c. above the inter-war record achieved in 1929.

### *Cheques Cashed at Clearing-House Centres, 1946-50*

| Economic Area                      | 1946                  | 1947                  | 1948                  | 1949                  | 1950                   |
|------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
|                                    | \$                    | \$                    | \$                    | \$                    | \$                     |
| Maritime Provinces <sup>1</sup> .. | 1,604,018,266         | 1,750,654,723         | 1,970,079,395         | 2,317,673,928         | 2,648,160,641          |
| Quebec.....                        | 20,749,359,813        | 22,919,909,358        | 23,689,833,048        | 24,732,489,732        | 29,106,858,312         |
| Ontario.....                       | 30,401,955,884        | 30,433,876,385        | 33,381,605,192        | 36,469,080,580        | 43,146,166,945         |
| Prairie Provinces..                | 11,124,679,682        | 12,853,736,283        | 14,602,310,298        | 16,494,526,390        | 17,287,706,202         |
| British Columbia..                 | 5,367,593,788         | 6,539,916,229         | 7,043,619,628         | 7,540,592,213         | 8,446,566,739          |
| <b>Totals<sup>1</sup>..</b>        | <b>69,247,607,433</b> | <b>74,498,092,978</b> | <b>80,687,447,561</b> | <b>87,554,362,843</b> | <b>100,635,458,839</b> |

<sup>1</sup> Data for St. John's, Newfoundland, are included from April 1949.

## • Insurance

**Life Insurance.**—Life insurance business in Canada in 1950 continued the ever-increasing rate of expansion in evidence particularly since the end of World War II. The sale of life insurance, which combines both protection and savings, has been greatly influenced by the international unrest experienced during these years—uncertainty stimulates the human instinct to conserve against a time of emergency. Also Canada's impressive industrial expansion and the prevalent trend towards individual security has strengthened the demand for the services and protection of life insurance. During 1950, new business written, including industrial and group insurance, amounted to \$1,971,000,000, which brought the total life insurance in force in Canada at the end of the year to \$16,730,000,000. This represents an average of \$1,208.37 of insurance protection for every man, woman and child in the country. The amount of premiums paid to carry this insurance was \$393,000,000. Total benefits paid during the year to policyholders, including death claims, matured endowments, dividends, surrender values and annuity payments were over \$240,000,000. Life insurance in Canada is transacted by 55



companies registered by the Federal Government, of which 30 are Canadian, 5 British and 20 foreign. There are also a few companies operating under provincial licence only.

Coverage offered by life companies is constantly undergoing change. One of the most interesting is the attitude towards air travel. Whereas 25 years ago exorbitant prices were charged for any available coverage, to-day air travel is recognized as being safer than many other occupational or travel hazards and coverage is granted in life policies without additional premiums. In addition, almost any form of flying risk can be covered by both life and casualty insurance at nominal rates.

**Fire Insurance.**—The growth of the fire insurance business has also been phenomenal and, though a good part of this growth may be attributed to the increase in the practice of insurance, it is also indicative of the advance in the amount and value of insurable property throughout the country. Fire insurance in force at the end of 1950 amounted to approximately \$32,000,000,000, premiums written amounted to \$131,000,000, and claims paid to \$68,000,000. At the end of 1950 there were 273 companies registered by the Federal Government transacting fire insurance business in Canada: 65 of these were Canadian companies, 82 British and 126 foreign.

**Casualty Insurance.**—Casualty insurance includes: accident (personal accident employers' liability and public liability); aircraft; automobile; boiler; credit; earthquake; explosion; falling aircraft; forgery; guarantee; hail; impact by vehicles; inland transportation; live stock; personal property; plate glass; real property; sickness; sprinkler leakage; theft; water damage; weather; and windstorm.

The classes of casualty business accounting for the largest and most rapidly increasing premium income are automobile, personal accident and sickness, and personal property. Premiums written for these classes amounted to \$168,000,000 in 1950, and those for all classes of casualty to \$221,000,000. In 1950 there were 284 companies transacting casualty business, of which 67 were Canadian, 79 British and 138 foreign. The majority of these companies also reported fire business.



Ceremony marked the arrival on Apr. 24, 1951, of the first cargo of Alberta crude oil at the Sarnia, Ont., refinery. The crude travelled about 1,800 miles from the oilfields to the head of the lakes by pipe line and from there by tanker.

# Index

|                                                        | PAGE                    |
|--------------------------------------------------------|-------------------------|
| Aboriginal races.....                                  | 60-63                   |
| Act, Agricultural Prices Support.....                  | 140                     |
| — Canadian Citizenship.....                            | 67                      |
| — Consumer Credit.....                                 | 16                      |
| — Family Allowances.....                               | 88-9                    |
| — Farm Improvement Loans.....                          | 143, 222                |
| — Government Annuities.....                            | 237                     |
| — Industrial Relations and Disputes Investigation..... | 232-3                   |
| — Maritime Marshland Rehabilitation.....               | 142                     |
| — National Housing.....                                | 222-3                   |
| — Physical Fitness.....                                | 91                      |
| — Pension.....                                         | 97                      |
| — Prairie Farm Assistance.....                         | 142                     |
| — Prairie Farm Rehabilitation.....                     | 141-2                   |
| Acts, veterans welfare.....                            | 96                      |
| Agricultural income.....                               | 144-8                   |
| — Prices Support Board.....                            | 140                     |
| — regions.....                                         | 137-9                   |
| — statistics.....                                      | 144-63                  |
| Air Agreements, international.....                     | 249-50                  |
| — Lines, Canadian Pacific.....                         | 248-9                   |
| — independent.....                                     | 249                     |
| — Trans-Canada.....                                    | 247-8                   |
| — mail service.....                                    | 256                     |
| Alberta, agriculture.....                              | 146                     |
| — births, deaths and marriages.....                    | 70, 71                  |
| — construction.....                                    | 220                     |
| — emigration.....                                      | 66                      |
| — family allowances.....                               | 89                      |
| — finance.....                                         | 297, 298, 299, 301, 302 |
| — fisheries.....                                       | 194                     |
| — forestry.....                                        | 167                     |
| — fur production.....                                  | 197                     |
| — manufactures.....                                    | 213                     |
| — minerals.....                                        | 176-7, 178              |
| — old age pensions.....                                | 90                      |
| — pensions for the blind.....                          | 91                      |
| — physical features.....                               | 48                      |
| — physical fitness aid.....                            | 92                      |
| — population.....                                      | 58                      |
| — production.....                                      | 134                     |
| — water powers.....                                    | 181, 182, 185           |
| Allowances, family.....                                | 88-9                    |
| — mothers.....                                         | 93                      |
| — veterans.....                                        | 96                      |
| Animals, live stock.....                               | 155-6                   |
| Annuities, Government.....                             | 237                     |
| Armed Forces of Canada.....                            | 35-6                    |
| Arts, Letters and Sciences, Royal Commission on.....   | 113                     |
| — creative.....                                        | 113-20                  |
| Automobile industry.....                               | 204                     |
| — registration and supply.....                         | 241-3                   |
| — sales and financing.....                             | 260                     |
| Ballet.....                                            | 119                     |
| Bank, Industrial Development.....                      | 303                     |
| — of Canada.....                                       | 302-3                   |
| Banking.....                                           | 302-7                   |
| — commercial.....                                      | 303-6                   |
| Barley, production and value.....                      | 153-4, 155              |
| Births.....                                            | 68-9, 71                |
| Blind, pensions for the.....                           | 90-1                    |
| Bread and bakery products.....                         | 204, 206                |
| British Columbia, agriculture.....                     | 146                     |
| — births, deaths and marriages.....                    | 70, 71                  |
| — construction.....                                    | 220                     |

|                                                         | PAGE                    |
|---------------------------------------------------------|-------------------------|
| British Columbia, emigration.....                       | 66                      |
| — family allowances.....                                | 89                      |
| — finance.....                                          | 297, 298, 299, 301, 302 |
| — fisheries.....                                        | 194                     |
| — forestry.....                                         | 167                     |
| — fur production.....                                   | 197                     |
| — manufactures.....                                     | 212, 213                |
| — minerals.....                                         | 177-8                   |
| — old age pensions.....                                 | 90                      |
| — pensions for the blind.....                           | 91                      |
| — physical features.....                                | 48                      |
| — physical fitness aid.....                             | 92                      |
| — population.....                                       | 58                      |
| — production.....                                       | 134                     |
| — water powers.....                                     | 181, 182, 184-5         |
| Broadcasting, national.....                             | 252-6                   |
| Budget, 1951-52.....                                    | 294                     |
| Building construction.....                              | 217                     |
| Butter and cheese.....                                  | 157-8, 160, 204         |
| Canada, Bank of.....                                    | 302-3                   |
| — in the Chemical Age.....                              | 19-29                   |
| — physical features of.....                             | 45-9                    |
| — U.K. Wheat Agreement.....                             | 149                     |
| Canada's defence program.....                           | 31-43                   |
| — diplomatic service.....                               | 79                      |
| — external relations.....                               | 76-9                    |
| Canadian Arts Council.....                              | 120                     |
| — Broadcasting Corporation.....                         | 252-6                   |
| — Farm Loan Board.....                                  | 143                     |
| — Pacific Air Lines.....                                | 248-9                   |
| — Social Science Research Council.....                  | 120-1                   |
| — Wheat Board.....                                      | 145, 151                |
| Canals.....                                             | 246-7                   |
| Census of merchandising and service establishments..... | 259-64                  |
| — of population.....                                    | 55-9                    |
| Central electric stations.....                          | 186-7                   |
| — Mortgage and Housing Corporation.....                 | 222-3                   |
| Chain stores.....                                       | 261                     |
| Chartered banks.....                                    | 303-6                   |
| Cheese and butter.....                                  | 157-8, 160, 204         |
| Chemical Age, Canada in the.....                        | 19-29                   |
| — industry, defined.....                                | 20-2                    |
| — developments.....                                     | 19-20, 22-9             |
| Chemicals, manufactures of.....                         | 210                     |
| Cities and towns, manufacturing in..                    | 213-4                   |
| — population of.....                                    | 58-9                    |
| Citizenship.....                                        | 67                      |
| Civil aviation.....                                     | 247-50                  |
| Climate.....                                            | 49-50                   |
| Collective bargaining.....                              | 232-3                   |
| Communications.....                                     | 124-5, 250-7            |
| Compensation, workmen's.....                            | 93                      |
| Construction.....                                       | 9, 217-23               |
| — employment in.....                                    | 219                     |
| — Government assistance to.....                         | 222-3                   |
| — hydro-electric during 1951.....                       | 182-6                   |
| — residential.....                                      | 220-2                   |
| Co-operative associations.....                          | 264-6                   |
| Corporation tax collections.....                        | 296                     |
| Cost-of-living index.....                               | 17, 267-9               |
| Crops, field.....                                       | 148-55                  |
| — special.....                                          | 160-3                   |
| Customs duties, receipts from.....                      | 293                     |

|                                                              | PAGE                     |                                                      | PAGE                     |
|--------------------------------------------------------------|--------------------------|------------------------------------------------------|--------------------------|
| Dairy production.....                                        | 157-60                   | Government, municipal.....                           | 76                       |
| Deaths.....                                                  | 69-70, 71                | — provincial.....                                    | 76                       |
| Debt, combined government.....                               | 291, 292                 | — Territories.....                                   | 76                       |
| — federal.....                                               | 291, 292                 | Grain crops.....                                     | 12, 148-55               |
| — municipal.....                                             | 291, 302                 |                                                      |                          |
| — provincial.....                                            | 291, 299                 | Handicrafts.....                                     | 120                      |
| Defence appropriations.....                                  | 31-2                     | Harbours.....                                        | 246                      |
| — expenditure.....                                           | 16                       | Health, national grant program.....                  | 81-2                     |
| — industrial effort.....                                     | 37-42                    | — public.....                                        | 81-6                     |
| — Production Act.....                                        | 15                       | Highways and roads.....                              | 241                      |
| — program.....                                               | 31-43                    | Home construction.....                               | 9, 217, 220-2            |
| — Research Board.....                                        | 42-3                     | Honey production.....                                | 162-3                    |
| Diplomatic Service.....                                      | 79                       | Hospitals and sanatoria.....                         | 84-6                     |
| Domestic trade.....                                          | 259-69                   | House of Commons.....                                | 73-5                     |
| Dominion Council of Health.....                              | 81                       | Housing Act, National.....                           | 222-3                    |
| — finance.....                                               | 16-7, 291-6              | Hydro-electric construction, 1951.....               | 182-6                    |
| Drama.....                                                   | 116-7                    | — power production.....                              | 181-7                    |
| Dwelling units, construction of.....                         | 217, 221                 |                                                      |                          |
|                                                              |                          | Immigration.....                                     | 64-6                     |
| Economic conditions 1951.....                                | 9-17                     | Imports.....                                         | 13-4, 271, 273, 279, 281 |
| Education.....                                               | 99-106                   | Income, farm.....                                    | 144-6                    |
| Electric power.....                                          | 12, 181-7                | — national.....                                      | 127-31                   |
| — export of.....                                             | 187                      | — personal.....                                      | 17, 130-1                |
| — production, values of.....                                 | 133                      | — tax.....                                           | 293, 294-6               |
| — railways.....                                              | 240-1                    | Indians, administration of.....                      | 60-2                     |
| Electrochemicals.....                                        | 23-4                     | — education of.....                                  | 102-3                    |
| Emigration.....                                              | 66-7                     | Industrial defence effort.....                       | 37-40                    |
| Employment.....                                              | 12, 226-8                | — Relations and Disputes Investiga-<br>tion Act..... | 230, 232-3               |
| — in construction.....                                       | 219                      | Industries, forest.....                              | 165-71                   |
| — in manufactures.....                                       | 214-5                    | — manufacturing.....                                 | 203-15                   |
| — Service.....                                               | 236                      | Infant mortality.....                                | 70                       |
| Eskimos, administration of.....                              | 62-3                     | Insurance, casualty.....                             | 308                      |
| Excess profits tax.....                                      | 293                      | — fire.....                                          | 308                      |
| Excise duties, receipts from.....                            | 293                      | — life.....                                          | 307-8                    |
| Expenditures, combined government.....                       | 289-90                   | — unemployment.....                                  | 91, 234-6                |
| — federal.....                                               | 16, 290, 292-3           | International activities, Canada's.....              | 76-9                     |
| — gross national.....                                        | 128-30                   | — air agreements.....                                | 249-50                   |
| — municipal.....                                             | 290, 297-8               | — Civil Aviation Organization.....                   | 250                      |
| — personal.....                                              | 17, 130-1                | — payments, balance of.....                          | 282-5                    |
| — provincial.....                                            | 290                      | — Wheat Agreement.....                               | 149, 150-1               |
| Exports.....                                                 | 13-4, 271, 273, 279, 280 | Investment, public and private.....                  | 12-3                     |
| — newsprint.....                                             | 280                      | Iron and steel industries.....                       | 11, 204, 207, 210        |
| — wheat.....                                                 | 150, 280                 |                                                      |                          |
| External relations, Canada's.....                            | 76-9                     | Judiciary.....                                       | 75                       |
|                                                              |                          |                                                      |                          |
| Family allowances.....                                       | 88-9                     | Labour.....                                          | 225-37                   |
| Farm Improvement Loans Act.....                              | 143, 222                 | — Force.....                                         | 12, 225-6                |
| — Loan Board, Canadian.....                                  | 143                      | — wages and hours of.....                            | 228-30                   |
| — prices, index numbers of.....                              | 147-8                    | Liabilities, Federal Government.....                 | 291                      |
| Federal debt.....                                            | 291, 292                 | — of municipal governments.....                      | 291, 302                 |
| — expenditures.....                                          | 16, 290, 292-3           | — of provincial governments.....                     | 291, 299                 |
| — revenue.....                                               | 16, 289-90, 292-4        | Libraries.....                                       | 121-2                    |
| — welfare services.....                                      | 87-92                    | Life insurance.....                                  | 307-8                    |
| Field crops, area, yield, etc.....                           | 148-55                   | Live stock.....                                      | 155-6                    |
| Finance, public.....                                         | 289-302                  | Loans, farm.....                                     | 143                      |
| — federal.....                                               | 16-7, 289-91, 291-6      | — housing.....                                       | 222-3                    |
| — municipal.....                                             | 289-91, 300-2            | Lumbering operations.....                            | 165-71                   |
| — provincial.....                                            | 289-91, 296-9            |                                                      |                          |
| Fire insurance.....                                          | 308                      | Manitoba, agriculture.....                           | 146                      |
| Fisheries.....                                               | 189-95                   | — births, deaths and marriages.....                  | 70, 71                   |
| — production, statistics of.....                             | 133, 193-5               | — construction.....                                  | 220                      |
| Flaxseed, production and value.....                          | 155                      | — emigration.....                                    | 66                       |
| Food agreements with U.K.....                                | 149, 158, 162            | — family allowances.....                             | 89                       |
| — and Agriculture Organization,<br>Canada's interest in..... | 143                      | — finance.....                                       | 297, 298, 299, 301, 302  |
| Foreign trade.....                                           | 13-5, 271-87             | — fisheries.....                                     | 194                      |
| Forest administration.....                                   | 165-6                    | — forestry.....                                      | 167                      |
| — utilization.....                                           | 166-71                   | — fur production.....                                | 197                      |
| Forestry.....                                                | 165-71                   | — manufactures.....                                  | 213                      |
| — production, values of.....                                 | 133                      | — minerals.....                                      | 176, 178                 |
| Fruit-growing.....                                           | 160-2                    | — old age pensions.....                              | 90                       |
| Fuel production.....                                         | 179                      | — pensions for the blind.....                        | 91                       |
| Fur farming.....                                             | 199-200                  | — physical features.....                             | 47                       |
| — grading and marketing.....                                 | 200-1                    | — physical fitness aid.....                          | 92                       |
| — processing.....                                            | 200                      | — population.....                                    | 58                       |
| — resources and industry.....                                | 197-9                    | — production.....                                    | 134                      |
|                                                              |                          | — water powers.....                                  | 181, 182, 186            |
| Government.....                                              | 73-6                     | Manufactures.....                                    | 10-2, 133, 203-15        |
| — annuities.....                                             | 237                      | — indexes of employment in.....                      | 215                      |
| — federal.....                                               | 73-5                     | Maple products.....                                  | 163                      |
|                                                              |                          | Marriages.....                                       | 71                       |



|                                                    | PAGE                    |                                      | PAGE                    |
|----------------------------------------------------|-------------------------|--------------------------------------|-------------------------|
| Meat packing and slaughtering....                  | 204, 205-6              | Nova Scotia, family allowances.....  | 89                      |
| Merchandising and service establish-<br>ments..... | 259-64                  | — finance.....                       | 297, 298, 299, 301, 302 |
| Milk production.....                               | 157, 158, 160           | — fisheries.....                     | 194                     |
| Mines and minerals.....                            | 173-9                   | — forestry.....                      | 167                     |
| Mining development.....                            | 10, 40-2, 173-4         | — fur production.....                | 197                     |
| — production.....                                  | 133                     | — manufactures.....                  | 213                     |
| Mothers' allowances.....                           | 93                      | — minerals.....                      | 175, 178                |
| Motion-picture theatres.....                       | 125                     | — old age pensions.....              | 90                      |
| Motor-carriers.....                                | 243-4                   | — pensions for the blind.....        | 91                      |
| — vehicles.....                                    | 241-2                   | — physical features.....             | 46                      |
| Municipal assessments.....                         | 301                     | — physical fitness aid.....          | 92                      |
| — finance.....                                     | 289-91, 300-2           | — population.....                    | 58                      |
| Museums.....                                       | 122-4                   | — production.....                    | 134                     |
| Music.....                                         | 115-6                   | — water powers.....                  | 181, 182, 186           |
| National broadcasting.....                         | 252-6                   | Oats, production and value.....      | 152-3, 155              |
| — debt.....                                        | 291, 292                | Oil, Edmonton-Superior pipe line.... | 10, 174                 |
| — Employment Service.....                          | 236                     | — production.....                    | 10, 174, 204            |
| — Film Board.....                                  | 125                     | Old age pensions.....                | 89-90                   |
| — Gallery of Canada.....                           | 118                     | Ontario, agriculture.....            | 146                     |
| — Health and Welfare, Dept. of....                 | 81, 87                  | — births, deaths and marriages.....  | 70, 71                  |
| — Housing Act.....                                 | 222-3                   | — construction.....                  | 220                     |
| — income.....                                      | 127-31                  | — emigration.....                    | 66                      |
| — parks.....                                       | 51-2                    | — family allowances.....             | 89                      |
| — Research Council.....                            | 107-11                  | — finance.....                       | 297, 298, 299, 301, 302 |
| NATO, Canada and.....                              | 33-4, 78                | — fisheries.....                     | 194                     |
| Natural increase.....                              | 70-71                   | — forestry.....                      | 167                     |
| New Brunswick, agriculture.....                    | 146                     | — fur production.....                | 197                     |
| — births, deaths and marriages.....                | 70, 71                  | — manufactures.....                  | 210-11, 213             |
| — construction.....                                | 220                     | — minerals.....                      | 176, 178                |
| — emigration.....                                  | 66                      | — old age pensions.....              | 90                      |
| — family allowances.....                           | 89                      | — pensions for the blind.....        | 91                      |
| — finance.....                                     | 297, 298, 299, 301, 302 | — physical features.....             | 46-7                    |
| — fisheries.....                                   | 194                     | — physical fitness aid.....          | 92                      |
| — forestry.....                                    | 167                     | — population.....                    | 58                      |
| — fur production.....                              | 197                     | — production.....                    | 134                     |
| — manufactures.....                                | 213                     | — water powers.....                  | 181, 182, 183           |
| — minerals.....                                    | 175, 178                | Painting.....                        | 118-9                   |
| — old age pensions.....                            | 90                      | Paper production.....                | 168-71, 205, 210        |
| — pensions for the blind.....                      | 91                      | Parks.....                           | 51-3                    |
| — physical features.....                           | 46                      | Pensions for blind persons.....      | 90-1                    |
| — physical fitness aid.....                        | 92                      | — old age.....                       | 89-90                   |
| — population.....                                  | 58                      | Petrochemicals.....                  | 26-8                    |
| — production.....                                  | 134                     | Petroleum production.....            | 11, 174, 179, 204       |
| — water powers.....                                | 181, 182, 186           | Physical fitness.....                | 91-2                    |
| Newfoundland, births, deaths and<br>marriages..... | 70, 71                  | Pipe line, Edmonton-Superior.....    | 10                      |
| — construction.....                                | 220                     | Population.....                      | 55-71                   |
| — emigration.....                                  | 66                      | — Eskimo.....                        | 62-3                    |
| — family allowances.....                           | 89                      | — Indian.....                        | 60-2                    |
| — finance.....                                     | 297, 298, 299, 301, 302 | Postal service.....                  | 256-7                   |
| — forestry.....                                    | 167                     | Poultry and eggs.....                | 156-7                   |
| — manufactures.....                                | 213                     | Power, water.....                    | 181-7                   |
| — minerals.....                                    | 175, 178                | Prairie Farm Assistance Act.....     | 142                     |
| — old age pensions.....                            | 90                      | — Rehabilitation Act.....            | 141-2                   |
| — pensions for the blind.....                      | 91                      | Precipitation and temperatures.....  | 50                      |
| — physical features.....                           | 45                      | Press, the.....                      | 124                     |
| — physical fitness aid.....                        | 92                      | Prices, farm.....                    | 147-8                   |
| — population.....                                  | 58                      | — retail.....                        | 17                      |
| — production.....                                  | 134                     | — wholesale.....                     | 17, 266-7               |
| — water powers.....                                | 181, 182, 186           | Prince Edward Island, agriculture... | 146                     |
| Newsprint.....                                     | 168, 169, 170, 205      | — births, deaths and marriages.....  | 70, 71                  |
| Non-ferrous smelting and refining                  | 204, 206-7, 210         | — construction.....                  | 220                     |
| Non-metallic mineral production.....               | 179, 210                | — emigration.....                    | 66                      |
| Northwest Territories, administra-<br>tion of..... | 76                      | — family allowances.....             | 89                      |
| — fisheries.....                                   | 194                     | — finance.....                       | 297, 298, 299, 301, 302 |
| — fur production.....                              | 197                     | — fisheries.....                     | 194                     |
| — manufactures.....                                | 213                     | — forestry.....                      | 167                     |
| — minerals.....                                    | 178                     | — fur production.....                | 197                     |
| — old age pensions.....                            | 90                      | — manufactures.....                  | 213                     |
| — pensions for the blind.....                      | 91                      | — old age pensions.....              | 90                      |
| — population.....                                  | 58                      | — pensions for the blind.....        | 91                      |
| — water powers.....                                | 181, 182                | — physical features.....             | 46                      |
| Nova Scotia, agriculture.....                      | 146                     | — physical fitness aid.....          | 92                      |
| — births, deaths and marriages.....                | 70, 71                  | — population.....                    | 58                      |
| — construction.....                                | 220                     | — production.....                    | 134                     |
| — emigration.....                                  | 66                      | — water powers.....                  | 181, 182, 186           |
|                                                    |                         | Production, agricultural.....        | 12, 133, 137-63         |
|                                                    |                         | — electric power.....                | 133, 181-7              |

# INDEX—concluded

|                                                     | PAGE                    |                                            | PAGE         |
|-----------------------------------------------------|-------------------------|--------------------------------------------|--------------|
| Production, fisheries.....                          | 133, 189-95             | Sciences, natural.....                     | 106-11       |
| — forestry.....                                     | 133, 165-71             | — social.....                              | 120-1        |
| — fur.....                                          | 197-200                 | Scientific research.....                   | 106-11       |
| — grain.....                                        | 148-55                  | Seed crops.....                            | 163          |
| — industrial.....                                   | 10-2                    | Senate.....                                | 73, 74       |
| — manufacturing.....                                | 10-1, 133, 203-15       | Shipping.....                              | 244-5        |
| — mining.....                                       | 10, 133, 173-9          | Slaughtering and meat packing.....         | 204, 205-6   |
| — survey of.....                                    | 132-5                   | Social welfare.....                        | 86-94        |
| Provincial bonded indebtedness.....                 | 299                     | Steam railways.....                        | 239-40       |
| — health services.....                              | 82-3                    | Steel and iron industries.....             | 11, 207, 210 |
| — parks.....                                        | 53                      | Strikes and lockouts.....                  | 232-3        |
| — public finance.....                               | 296-9                   | Sugar beets.....                           | 163          |
| — welfare services.....                             | 92-3                    | Survey of production.....                  | 132-5        |
| Public finance.....                                 | 16-7, 289-302           |                                            |              |
| — health.....                                       | 81-6                    | Taxation, federal.....                     | 293, 294-6   |
| Pulp and paper industry.....                        | 11, 168-71, 204, 205    | — income.....                              | 294-6        |
|                                                     |                         | — municipal.....                           | 301          |
| Quebec, agriculture.....                            | 146                     | — provincial.....                          | 298          |
| — births, deaths and marriages.....                 | 70, 71                  | Telegraphs.....                            | 250-1        |
| — construction.....                                 | 220                     | Telephones.....                            | 251-2        |
| — emigration.....                                   | 66                      | Temperatures and precipitation.....        | 50           |
| — family allowances.....                            | 89                      | Textile industries.....                    | 11, 209, 210 |
| — finance.....                                      | 297, 298, 299, 301, 302 | Theatres, motion-picture.....              | 125          |
| — fisheries.....                                    | 194                     | Tobacco.....                               | 162, 210     |
| — forestry.....                                     | 167                     | Tourist trade.....                         | 285-7        |
| — fur production.....                               | 197                     | Trade balance.....                         | 271          |
| — manufactures.....                                 | 211-2, 213              | — domestic.....                            | 259-69       |
| — minerals.....                                     | 175-6, 178              | — foreign.....                             | 13-5, 271-87 |
| — old age pensions.....                             | 90                      | — policy.....                              | 277          |
| — pensions for the blind.....                       | 91                      | — retail.....                              | 259-63       |
| — physical features.....                            | 46                      | — tourist.....                             | 285-7        |
| — physical fitness aid.....                         | 92                      | — wholesale.....                           | 263-4        |
| — population.....                                   | 58                      | — world, Canada's place in.....            | 272          |
| — production.....                                   | 134                     | Training, vocational.....                  | 237          |
| — water powers.....                                 | 181, 182, 183-4         | Trans-Canada Air Lines.....                | 247-8        |
|                                                     |                         | Trans-Pacific Air Service.....             | 248-9        |
| Radio.....                                          | 124-5, 252-6            | Transportation and communications.....     | 239-57       |
| Railway construction.....                           | 217                     | Trapping.....                              | 133          |
| Railways.....                                       | 239-41                  |                                            |              |
| Research, agricultural.....                         | 139-40                  | Unemployment insurance.....                | 91, 234-6    |
| — Board, Defence.....                               | 42-3                    | Unions, co-operative.....                  | 264-6        |
| — Council, National.....                            | 107-11                  | — trade.....                               | 233-4        |
| — scientific.....                                   | 106-11                  | United Kingdom, trade with.....            | 276, 279     |
| Resources, agricultural.....                        | 137-63                  | — Nations, Canada and.....                 | 78           |
| — fishery.....                                      | 189-95                  | Urban population.....                      | 58-9         |
| — forestry.....                                     | 165-71                  | — centres, manufacturing in.....           | 213-4        |
| — furs.....                                         | 197-200                 | — transport services.....                  | 240-1        |
| — minerals.....                                     | 173-9                   |                                            |              |
| — water power.....                                  | 181-7                   | Vehicles, motor.....                       | 241-2        |
| Retail trade.....                                   | 259-63                  | Veterans affairs.....                      | 94-7         |
| Revenue, agricultural.....                          | 144-8                   | — allowances.....                          | 96           |
| — combined government.....                          | 289-90                  | — Business and Professional Loans Act..... | 96           |
| — federal.....                                      | 16, 289-90, 292-4       | — Charter.....                             | 94-5         |
| — municipal.....                                    | 289-90, 300-1           | — disability pensions.....                 | 97           |
| — provincial.....                                   | 289-90, 297-8           | — Land Act.....                            | 96-7         |
| Roads and highways.....                             | 241                     | — treatment, medical.....                  | 96-7         |
| Royal Commission on Arts, Letters and Sciences..... | 113                     | Vital statistics.....                      | 67-71        |
| Rye, production and value.....                      | 154, 155                | Vocational training.....                   | 237          |
|                                                     |                         |                                            |              |
| Saskatchewan, agriculture.....                      | 146                     | Wage rates, index numbers of.....          | 228          |
| — births, deaths and marriages.....                 | 70, 71                  | War veterans' allowances.....              | 96           |
| — construction.....                                 | 220                     | Water powers.....                          | 181-7        |
| — emigration.....                                   | 66                      | Welfare services.....                      | 86-94        |
| — family allowances.....                            | 89                      | Wheat agreement with U.K.....              | 149          |
| — finance.....                                      | 297, 298, 299, 301, 302 | — exports.....                             | 150, 280     |
| — fisheries.....                                    | 194                     | — price policy.....                        | 150-2        |
| — forestry.....                                     | 167                     | — production.....                          | 12, 148-52   |
| — fur production.....                               | 197                     | Wholesale and retail trade.....            | 259-64       |
| — manufactures.....                                 | 213                     | — prices.....                              | 266-7        |
| — minerals.....                                     | 176, 178                | Workmen's compensation.....                | 93           |
| — old age pensions.....                             | 90                      | Writing, creative.....                     | 114          |
| — pensions for the blind.....                       | 91                      |                                            |              |
| — physical features.....                            | 47                      | Yukon, administration of.....              | 76           |
| — physical fitness aid.....                         | 92                      | — fisheries.....                           | 194          |
| — population.....                                   | 58                      | — forestry.....                            | 167          |
| — production.....                                   | 134                     | — fur production.....                      | 197          |
| — water powers.....                                 | 181, 182, 186           | — manufactures.....                        | 213          |
| Sawmilling industry.....                            | 166-8, 204              | — minerals.....                            | 178          |
| Schools.....                                        | 99-106, 119-20          | — population.....                          | 58           |
|                                                     |                         | — water powers.....                        | 181, 182     |







# CANADA

LEGEND

|            |  |           |  |
|------------|--|-----------|--|
| IRON MINES |  | RAILROADS |  |
| WINDMILLS  |  | SEA       |  |
| ISLANDS    |  | WINDMILLS |  |
| FORESTS    |  | WINDMILLS |  |









**CANADA**  
**1953**



AKLAVIK  
DAWSON  
MAYO  
WHITEHORSE  
COPPERMINE  
NORMAN WELLS  
PORT RADIIUM  
YELLOWKNIFE  
FORT SMITH  
PRINCE RUPERT  
KITIMAT  
DAWSON CREEK  
PEACE RIVER  
REDWATER  
EDMONTON  
LLOYDMINSTER  
LEUDC  
FRINCE ALBERT  
SASKATOON  
KAMLOOPS  
CALGARY  
COLEVILLE  
VICTORIA  
VANCOUVER  
TRAIL  
KIMBERLEY  
FOSTERTON  
REGINA  
FLIN FLON  
VIRDEN

# CANADA

PRINCE HARBOR

POND INLET

PASQUETUNG

ROBERTS

WHITE RIVER

ST. JOHN'S

ST. JOHN'S

ST. JOHN'S

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The towers of Canada's Parliament Buildings rise above the waters of the Rideau Canal as they flow into the Ottawa River.



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# CANADA 1953

THE OFFICIAL HANDBOOK OF PRESENT  
CONDITIONS AND RECENT PROGRESS

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PUBLISHED BY THE AUTHORITY OF  
THE RIGHT HONOURABLE C. D. HOWE  
MINISTER OF TRADE AND COMMERCE

PREPARED BY THE  
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DEPARTMENT OF TRADE AND COMMERCE  
OTTAWA

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OTTAWA, 1953





**ELIZABETH THE SECOND, BY THE GRACE OF GOD  
OF THE UNITED KINGDOM, CANADA AND HER  
OTHER REALMS AND TERRITORIES QUEEN, HEAD OF  
THE COMMONWEALTH, DEFENDER OF THE FAITH.**

*(As provided in the Royal Style and Titles Act, 1953, this title  
comes into force on the day the Royal Proclamation is issued.)*



## Foreword

THE illustrated *Canada Handbook* is prepared and edited in the Canada Year Book Section of the Dominion Bureau of Statistics from material obtained from the various Divisions of the Bureau and Departments of the Federal Government. In certain special fields, information has been kindly contributed by other sources.

As a companion volume of *The Canada Year Book*, the *Canada Handbook* offers to the public generally in Canada and abroad an attractive and well-balanced picture of the economic and social life of the nation. The textual and statistical coverage follows somewhat the same pattern as that in previous editions with emphasis this year directed to mineral development and external relations. The information presented is as up to date as possible at the time of going to press and gives an outline of Canada's impressive growth to the close of 1952.

*H. Marshall*

*Dominion Statistician.*

OTTAWA, January 30, 1953.





# Contents

|                                                     | PAGE |
|-----------------------------------------------------|------|
| ECONOMIC CONDITIONS AT THE CLOSE OF 1952.....       | 9    |
| CANADIAN MINERAL DEVELOPMENT (SPECIAL ARTICLE)..... | 21   |
| CANADA'S EXTERNAL RELATIONS (SPECIAL ARTICLE).....  | 33   |
| ADVANCE TO NATIONHOOD.....                          | 47   |
| CANADA—THE COUNTRY.....                             | 51   |
| THE PEOPLE.....                                     | 63   |
| THE GOVERNMENT.....                                 | 81   |
| HEALTH AND WELFARE—VETERANS AFFAIRS.....            | 87   |
| EDUCATION—SCIENTIFIC RESEARCH.....                  | 105  |
| SOCIAL AND CULTURAL RELATIONSHIPS.....              | 119  |
| NATIONAL INCOME—SURVEY OF PRODUCTION.....           | 133  |
| AGRICULTURE.....                                    | 143  |
| WATER POWER.....                                    | 169  |
| FORESTRY.....                                       | 177  |
| MINES AND MINERALS.....                             | 187  |
| FISHERIES.....                                      | 193  |
| FURS.....                                           | 201  |
| MANUFACTURES.....                                   | 207  |
| CAPITAL EXPENDITURES.....                           | 221  |
| LABOUR.....                                         | 229  |
| TRANSPORTATION — COMMUNICATIONS.....                | 243  |
| DOMESTIC TRADE.....                                 | 265  |
| FOREIGN TRADE.....                                  | 279  |
| FINANCE.....                                        | 295  |
| INDEX.....                                          | 317  |

## ***Symbols***

The interpretation of the symbols used in the tables throughout this publication is as follows:—

- |                                               |                                                                     |
|-----------------------------------------------|---------------------------------------------------------------------|
| .. figures not available                      | - - amount too small to be expressed or<br>where a "trace" is meant |
| ... figures not appropriate or not applicable | <sup>p</sup> figures are preliminary.                               |
| — nil or zero                                 |                                                                     |



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The coloured illustrations were made available through the courtesy of the National Film Board, the Canadian Government Travel Bureau, the National Gallery, George Hunter, Ottawa, and Malak, Ottawa. Acknowledgement is also made to the following sources for assistance in supplying photographic material:—

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| British Columbia Government Travel Bureau | <i>Halifax Chronicle-Herald</i>            |
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| Canadian Government Travel Bureau         | Ross Jackson, Ottawa                       |
| Canadian International Trade Fair         | Malak, Ottawa                              |
| Canadian National Railway System          | Manitoba Bureau of Travel and Publicity    |
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| Canadian Press                            | Montreal Department of Public Works        |
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▲  
 Medicine Lake in Jasper National  
 Park, Alta. Jasper and Banff are  
 magic names to the vacationist,  
 envisaging mountain and lake  
 playgrounds of unsurpassed  
 splendour.

▼  
 Vacationists pause to view a derelict  
 ferry beached on the St. Lawrence  
 River across from Trois-  
 Rivières, Que.







Wheat and Oil — Harvest time in Alberta in the oilfields area between Devon and Leduc.

## *Economic Conditions at the Close of 1952*

THE Canadian economy at the close of 1952 was characterized by very high levels of production and employment. The major demand factors supporting this activity were: defence expenditure, which rose more than 50 p.c. above 1951; consumer outlays, which were about 8 p.c. above the previous year, reflecting in part a sharp upturn in durable goods purchases; and exports of goods and services which were 11 p.c. above the 1951 level, due mainly to an increase in sales to overseas countries. In addition, considerable increases were reported in investment outlays for new construction, machinery and equipment, particularly in the fields of resource development and defence-supporting industries.

For the year as a whole, the increase in the total volume of production is estimated to have been around 6 p.c. The gross national production of goods and services totalled \$23,000,000,000 or approximately \$1,600 per person in a population of 14,430,000. In addition, imports amounted to \$5,500,000,000, bringing the value of the total available supply to \$28,500,000,000. Of this total, personal expenditure took 50.2 p.c., government expenditure 14.7 p.c., investment in new construction, machinery and equipment 14.5 p.c., investment in inventories 0.6 p.c. and exports 20.0 p.c. The shares absorbed by government, consumers and exports were higher than in the previous year, investment in new construction, machinery and equipment was about the same, while investment in inventories took a substantially smaller share.

A number of dominant factors highlight the year's economic activity: the abatement of inflationary pressures and the lifting of consumer credit regulations; the improvement in the supply of essential materials and the relaxation of controls over them; the surplus on merchandise trading account, in contrast to the deficit of the previous year; and the emergence of an exchange premium on the value of the Canadian dollar in terms of the United States dollar.

Offsetting these very impressive economic gains, there were developments of an adverse nature whose major impact was felt by individual economic groups. The outbreak of foot-and-mouth disease in Saskatchewan and the subsequent United States embargo on shipments of Canadian live stock seriously disrupted the live-stock industry throughout the year. Producers of wood products, cheese and textiles had difficulty in placing sales. Rising costs in the mining industry and the appreciation in the exchange value of the Canadian dollar seriously handicapped the gold-mining industry. On balance however, and noting these exceptions, the situation at the close of 1952 was one of extraordinary prosperity.

**Production and Employment.**—The gain of approximately 6 p.c. in total real output of goods and services in 1952 was shared by the majority of industries, although the amount of the increase varied considerably. Agricultural production showed a considerable increase due largely to the record wheat crop estimated at 687,900,000 bu. Farmers also harvested record crops of barley and soybeans and near-record or above-average outturns of most other field crops.

In contrast to the gain in real farm output, operations in the woods were at a lower level. Mineral production, on the other hand, was at an all-time high, with the composite volume index for mining about 8 p.c. above 1951 during the first ten months. In the same comparison, producer shipments of crude petroleum increased by more than 25 p.c. compared with 1951; this was accompanied by a considerable increase in domestic production of refined petroleum products.

Manufacturing output, in the ten-month comparison, was about the same as that of 1951. The sharp decline in production of passenger cars and major appliances and in certain soft goods industries which began in mid-1951 was continued into the early months of 1952. Early in the year, however, consumer demand recovered strongly and the subsequent increase in output in the depressed industries combined with the steady expansion in defence-supporting industries resulted in sharp production gains. In September and October the levels of the index of manufacturing output were the highest on record.

Output of non-durable manufactures was about 1 p.c. lower in the first ten months of 1952 than in the same period of 1951. The level of the non-durables index during the first six months of the year was well below that of the corresponding months of 1951, but moved ahead in the latter part of the year due in part to the recovery in the production of leather products, textiles and clothing in the third quarter. The durables index in the ten-month comparison averaged slightly higher than in the previous year, but followed a trend similar to that of non-durables. In the first ten months, output in the transportation equipment industry was nearly 16 p.c. higher than in the same period of 1951. Despite very rapid increases in the second half of 1952, production of motor-vehicles was only about 2 p.c. higher in the ten-month comparison. Activity in the aircraft and shipbuilding industries was substantially higher. The advances in these sectors were sufficiently strong to offset declines in the other durable industry groups.

A substantial gain in real output was recorded by the transportation, communication and storage group which rose by 8 p.c. over 1951. The volume of construction, as indicated by mid-year data on investors' intentions, also exceeded that of the preceding year by about 6 p.c. Volume of output in the trade sector was nearly 5 p.c. greater in the ten-month comparison.

Turning to total employment, the civilian labour force during 1952 averaged somewhat more than 1 p.c. higher than in 1951. While the number of persons with jobs in agriculture declined by about 6 p.c., non-agricultural employment was more than 2.5 p.c. higher. Total number of persons with jobs was about 1 p.c. greater.

Although employment in other industries such as transportation, construction and mining showed large increases, the manufacturing employment



index averaged only slightly above 1951 levels in the ten-month comparison. If account is taken of the decline in hours worked per week, total hours worked in manufacturing in 1952 showed a moderate drop compared with 1951.

**Personal Income and Expenditure.**—Personal income continued to rise during the year under review. Labour income, which in 1951 accounted for about 60 p.c. of personal income, showed a steady increase throughout 1952. Gains over 1951 were recorded in each of the first nine months, bringing the total for this period to \$8,012,000,000, nearly 12 p.c. above the same period of the previous year. These increases were the result both of increased employment and of higher average weekly earnings, with the latter supplying the larger percentage share. The gains in labour income in the nine-month comparison were spread over all major industrial sectors.

*The opening, in September 1952, by the Rt. Hon. C. D. Howe, of the Government-financed gas turbine plant at Malton, Ont., marked the end of Canadian total dependence on other countries for jet aircraft engines. Orenda engines produced at the new plant power the Avro-built CF-100 and the Canadair-built F-86 Sabre 5, both destined for major roles in the defence of freedom with the R.C.A.F.*



Other types of personal income include interest, dividends and net rents, net income of farm operators, incomes of individual enterprisers such as storekeepers, construction contractors, doctors and other professionals, and transfer payments. Interest, dividends and net rental income of persons increased during 1952. On the other hand, the net incomes of farm operators were subject to increases as a result of the record wheat crop, and decreases on account of higher expenses and lower prices of live stock. Other net incomes also remained fairly stable relative to the previous year. Transfer payments increased substantially, chiefly as a result of pension payments under the new old age security program.

Disposable income, that is to say, the portion of personal income remaining after payment of personal taxes, also rose in 1952. The increase was somewhat less than that of personal income, since there was a substantial advance in personal income taxes; from January to September 1952, Federal Government income-tax collections were 30 p.c. above the corresponding period of the previous year. This increase in personal income taxes can be attributed chiefly to the progressive structure of the tax system which causes a rise in income to generate an even greater rise in taxes, and to the imposition of the old age security tax of 2 p.c. which went into effect at mid-year.

Personal expenditure on consumer goods and services also increased during 1952. Total retail trade for the first ten months of the year was 7 p.c. above that of the corresponding period of 1951, but the growth throughout the year was very uneven. Total retail sales in the first quarter of 1952 were only slightly above the 1951 level. Sales of durable goods such as furniture, motor-vehicles, and radios and appliances lagged seriously. In the second and third quarters, however, there was a large upswing in these durable sales, following the easing of credit restrictions and the reduction of indirect taxes on certain classes of durable goods. Motor-vehicle sales, for example, which were 10 p.c. below the 1951 level in the first-quarter comparison, were 16 p.c. higher in the second quarter and 12 p.c. higher in the third quarter of 1952. Furniture store sales, which had been of about equal value in the first-quarter comparison, were higher by more than 19 p.c. in the second quarter and 30 p.c. in the third quarter of 1952. Radio and appliance sales also gained rapidly, and sales of television sets late in the year gave further impetus to the durable goods sector. Accompanying these increases in durable goods purchases, instalment-account buying and passenger-car financing showed large gains compared with 1951.

In summarizing the above changes in personal disposable income and expenditure, it may be noted that the increase in disposable income between 1951 and 1952 was approximately equal to the increase in personal expenditure, with the result that the residual item of personal saving was not appreciably altered.

**Government Economic Measures and Public Finance.**—The abatement of inflationary pressures in 1952 and the relative improvement in the supply situation was accompanied by the relaxation of a number of restrictive measures which the Government had instituted in the two previous years. Consumer credit regulations, which were first imposed in the autumn of 1950, were relaxed in January 1952, and removed entirely in May. In the latter month, the Bank of Canada expressed the view to the chartered banks that, with one exception, the special policies of credit restraint which had been





*Honeymoon Bay on Cowichan Lake, Vancouver Island, a shingle and sawmill development established close to the source of raw materials. The opening up of such areas in the course of primary resource extraction soon leads to the establishment of new industrial centres. Service industries grow up quickly, followed eventually by secondary manufacturing industries.*

agreed upon in February 1951 were no longer necessary. The exception related to bank loans secured by corporation stocks, where the arrangement calling for at least a 50-p.c. margin remained unchanged.

Increases in steel-producing capacity and supplies of other critical materials made possible substantial reductions in excise taxes in the Budget of Apr. 8, 1952. The tax of 25 p.c. on motor-cars, radios and certain appliances was reduced to 15 p.c., and the 15-p.c. tax on mechanically operated refrigerators, washing machines and electric stoves was suspended. Throughout the year, the Department of Defence Production progressively removed controls on certain essential materials as they came into better supply, including cadmium, lead, zinc, certain copper and aluminum products, sulphur and newsprint. Toward the end of the year, it was announced that the ban on the use of steel for certain types of non-essential construction would be lifted, effective Jan. 1, 1953.

The outbreak of foot-and-mouth disease in Saskatchewan early in 1952 presented the Government with an emergency situation which was quickly brought under control. However, the loss of the United States market caused a sharp drop in the price of beef products and the Government subsequently was obliged to establish support prices for cattle under the Agricultural Prices Support Act, as it had done for hogs earlier in the year. In May, an agreement



was reached between the Governments of the United Kingdom, New Zealand and Canada whereby Canadian meat could be shipped to the United Kingdom in exchange for New Zealand beef and pork, which would in turn be sold by Canada in the United States market. In November it was announced that the United States embargo on Canadian live stock would be lifted, effective March 1953.

There were a number of Government measures in the field of housing in 1952. Interest rates under the National Housing Act on new joint loans were raised from 5 to 5.25 p.c. in September. This action was necessary to maintain the supply of funds for housing which otherwise might seek more attractive avenues of investment. In October 1952, the Government approved increases in the maximum joint loans for rental housing which may be made by approved lending institutions and the Central Mortgage and Housing Corporation. Finally, in those communities of from 5,000 to 50,000 population, where lending institutions have not extended loans under the National Housing Act, such loans may now be made directly by the Central Mortgage and Housing Corporation.

The Canadian gold-mining industry operated under a handicap in 1952 due to rising costs and the appreciation in the exchange rate of the Canadian dollar. These factors resulted in a substantially smaller return from sales of gold, and a number of marginal mines were forced to shut down. Toward the end of the year it was announced that the Government would therefore increase payments to this industry under the Emergency Gold Mines Assistance Act, effective Jan. 1, 1953.

Federal Government revenues for the seven months ended Oct. 31, 1952, were \$2,365,000,000 compared with \$2,160,000,000 for the same period of 1951, an increase of \$205,000,000. This increase was more than accounted for by the gain in direct personal and corporation income taxes of \$218,000,000, but there was a decline in excise taxes of \$50,000,000. Customs import duties and excise duties increased moderately. It should be noted that the 1952 figures exclude the new old age security tax receipts; with these included, personal and corporation income taxes would show an additional increase of \$29,000,000, and excise taxes would show a net gain of \$25,000,000 rather than a decline.

Total Federal Government expenditure in the first seven months of 1952-53 was \$2,077,000,000, compared with \$1,656,000,000 in the same period of the previous year, a gain of \$421,000,000 or 25 p.c. The greater part of the increase was due to defence expenditure, which rose to \$883,000,000 from \$593,000,000 in the previous year. Despite the increase, the rate of defence spending in the first seven months of the fiscal year was well below the amount of \$2,100,000,000 appropriated by Parliament for 1952-53. The increase of \$131,000,000 in non-defence expenditures was due chiefly to higher payments to the provinces under the Tax Rental Agreements and higher disability pensions to veterans.

The budgetary surplus at the end of October 1952 was \$288,000,000 compared with \$504,000,000 at the end of October 1951.

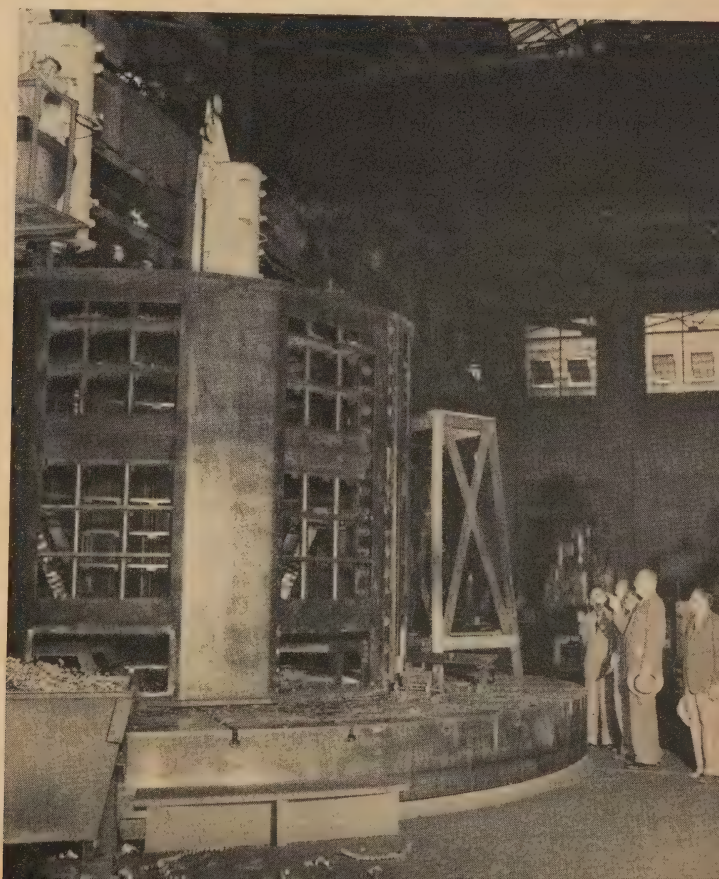
**Foreign Trade.**—The level of merchandise trade was very high throughout 1952. In the first ten months of the year exports were more than 11 p.c. above their record 1951 value for this period and their volume gain was

almost 12 p.c. On the other hand, the value of imports was 5 p.c. below that of the same period of 1951. However, the decline in the value of imports was entirely due to lower import prices and the favourable rate of exchange; in volume terms, imports actually rose by about 5 p.c. As a result of these developments, Canada's balance of trade on merchandise account in the first ten months of 1952 showed a surplus of \$248,000,000 compared with a deficit of \$292,000,000 for the same period of 1951.

While both import prices and export prices declined in 1952, the fall of import prices from their peak in June 1951 was greater than that of export prices from their peak in November 1951. As a result, the terms of trade (the ratio of export prices to import prices), which had become less favourable in the early part of 1951, improved substantially in 1952. In the first ten months of the year the terms of trade averaged 13 p.c. above the level of the 1951 period. This factor, together with the relatively greater increase in the volume of exports than in imports, was responsible for the marked change in the trade balance.

The greater part of the increase in exports in 1952 was in sales to overseas countries. Heavy exports of grains to the United Kingdom and Europe, together with increased sales of metals and forest products accounted for most of these gains. Latin America made especially heavy purchases of Canadian automobiles during the period that the domestic market was restricted by credit controls, and a variety of other exports to Latin America

giant generator being  
built in an Ontario plant  
for export to Brazil.



also increased. Exports to the United States showed little change from the high value and volume of 1951. The brief outbreak of foot-and-mouth disease in Canada closed the United States market to Canadian beef and cattle, and exports of wood-pulp and some other forest products were lower. However, these declines were offset by increases in such items as aircraft, base metals, asbestos and newsprint.

Imports from the United States and from Latin America in the first ten months of 1952 were greater than in the 1951 period. Defence imports from the United States increased in importance, and those of consumer goods and industrial materials were well maintained. Purchases of cotton and sugar from Latin America increased very sharply. Imports from other overseas countries declined; those from Europe and the United Kingdom were affected by the lower Canadian demand for textiles, and the United Kingdom's sales of automobiles were reduced by credit restrictions in Canada. The value of imports from the Commonwealth was reduced by a very sharp drop in the prices of rubber, wool and tin; in addition, Canadian inventories of these materials were drawn down during the period.

As a result of these changes, the pattern of trade in 1952 was altered considerably. The United States took only 53 p.c. of exports in the first ten months as opposed to 60 p.c. in the 1951 period, and supplied 74 p.c. of imports in the first ten months as opposed to 68 p.c. in the 1951 period. The deficit on merchandise trading account with the United States was thus increased from \$457,000,000 to \$536,000,000 in the first ten months of 1952. The United Kingdom, other Commonwealth countries, Europe, and other foreign countries absorbed a greater share of exports, but the proportion of imports originating in these countries declined (except for those of Latin America). There was consequently an increase in the trading surplus with the United Kingdom, from \$144,000,000 in the first ten months of 1951 to \$345,000,000 in the first ten months of 1952, while the balance on merchandise trade with other Commonwealth countries increased from a deficit of \$78,000,000 to a surplus of \$67,000,000. The trading surplus with other countries also showed a gain, rising from \$99,000,000 to \$373,000,000.

The current account surplus, however, was much smaller than the export surplus, because there continued to be a large deficit on non-merchandise transactions. The current surplus with overseas countries in the first ten months of 1952 was large enough to offset the substantial current deficit with the United States and to show a small surplus on transactions with all countries. By contrast, in 1951 the surplus with overseas countries offset less than one-half of the deficit with the United States.

**Capital Movements.**—The dominant factor in the capital account in 1952 was the inflow of long-term capital to finance Canadian development. This took two principal forms, inflows for direct investment in Canada, and inflows from the sale of new issues of Canadian securities in the United States.

Direct investment in Canadian branches and subsidiaries by foreign concerns has played an increasingly important role in the Canadian balance of payments since the end of the War, and the inflow has risen year by year to reach over \$300,000,000 in 1951. During the first nine months of 1952 the total exceeded that for the same period of 1951. About 85 p.c. of the total was associated with expansion of the mining and petroleum industry, nearly one-half falling in the latter category.





Kemano Camp from the air. The first stages of the big aluminum development 400 miles north of Vancouver are moving ahead on schedule. At the end of 1952, Kenney Dam was finished and water was rising in the 350 sq. mile lake being created. The ten-mile tunnel was driven half way through the mountain toward the half-completed Kemano power-house. The 50 miles of right-of-way for the transmission line was cleared and many of the 250 towers erected, and the smelter was rising in the cleared forest site at Kitimat.

Proceeds of new issues of Canadian securities sold in the United States totalled \$275,000,000 in the first nine months of the year. Retirements of Canadian securities owned abroad were considerably lower than in 1951 and net new issues of about \$220,000,000 in the nine months were about equal to the total for the whole of 1951. Nearly one-half the new issues were corporate obligations, the remainder being provincial and municipal issues. New issues in the third quarter of 1952 fell to only \$22,000,000 and there are indications that, while the fourth-quarter total will be considerably higher, there will also be heavy retirements.

Non-residents were also substantial purchasers of outstanding stocks of Canadian corporations in 1952; the capital inflow for this purpose totalled \$64,000,000 in the nine months.

Demands for Canadian funds arising from these substantial capital inflows totalled \$500,000,000 in the first nine months of the year, and were reinforced by demands arising from the current account surplus. Increased official holdings of gold and United States dollars supplied only a minor part of this demand. Official holdings of gold and U.S. dollars in December 1952 were \$1,860,200,000 compared with \$1,778,600,000 in December 1951. Pressures created in the exchange market by these transactions were reflected in the rising value of the Canadian dollar in terms of U.S. funds, which in December 1952 was about 5.5 cents higher than in December 1951.

The strength of the Canadian dollar contributed to large capital outflows through liquidations of outstanding Canadian bonds and debentures held by non-residents, and through short-term movements. The latter took the form mainly of reductions in accounts payable and increased holdings of bank balances and short-term investments abroad.

**Public and Private Investment in 1952.**—Capital expenditures in 1952 were substantially higher than in 1951. It is estimated that the total amount of public and private investment during the year amounted to approximately \$5,122,000,000, 12 p.c. higher in value terms than in 1951. This increase consisted of a 15-p.c. gain in new construction and a 17-p.c. larger outlay for new machinery and equipment.

Non-residential construction was higher both in value and in volume during 1952. The gains are attributed to substantial increases in work put in place on defence projects including airfields, barracks, military encampments, ranges, air defence installations, and so on, and in defence-induced industrial construction. Developments in aluminum, oil and iron ore accounted for a considerable portion of the gain in capital expenditures. By contrast, certain types of "non-essential" construction, which had been deliberately limited by steel restrictions and the deferred depreciation regulations of the Federal Government, showed little change or some decline during the year. The removal of steel restrictions was announced late in the year, and it was expected that deferred depreciation regulations would be removed shortly.

There was a gradual revival of home building commencing with the second quarter of 1952; this followed a severe set-back in the early months of the year. By early autumn, the rate of residential construction exceeded that for the corresponding period of 1951. This increased activity was related

to a larger flow of institutional mortgage money, and increased lending under the National Housing Act. For the year as a whole the value of new residential construction was expected to be equal to that of the year 1951.

The costs of building did not show generally any large increase in the year 1952; higher wage rates were offset, at least in part, by lower prices of such building materials as lumber, other wood products and window glass.

Investment in machinery and equipment continued at a higher level throughout 1952. In most cases, deliveries were higher than the previous year both in value and quantity. The favourable rate of exchange on the Canadian dollar during 1952 was reflected in some reductions in unit costs of various types of imported machinery, but unit costs of domestically produced machinery were, on the whole, somewhat higher.

Net additions to inventories, a form of investment not included in the capital expenditures described above, were much lower in 1952 than in 1951. Whereas the change in book values of inventories in 1951 amounted to \$1,620,000,000, inventory accumulation in 1952 was only about \$200,000,000. There was a very substantial decline in book values of holdings of manufacturing inventories, while retail trade inventories were also slightly lower. On the other hand, holdings of farm inventories, grain in commercial channels, and wholesale trade inventories were substantially higher at the close of 1952 than at the same time a year ago. On balance, the relatively small net addition to inventory book values in 1952 reflected a combination of a larger volume of inventory holdings and lower prices in some groups than at the close of 1951.

**Domestic Prices.**—The general wholesale price index reached a peak in July 1951, but declined by small amounts in nearly all months since that time. As a result, it was down by nearly 6 p.c. in the first ten months of 1952 by comparison with the same period of 1951. The major groups contributing to this decline were animal products, vegetable products, fibres and textiles, and non-ferrous metal products. Iron and steel products prices continued to expand.

The consumer price index declined by small amounts after Jan. 1, 1952, chiefly as a result of lower food prices. These declines were not sufficient to offset previous increases and, in the ten-month comparison, the index was more than 3 p.c. higher than a year previously.

Prices of commodities and services used by farmers increased, while the farm prices of their produce declined. Upward trends in some cost factors entering new construction, machinery and equipment and government expenditures continued during the year. The movements of export and import prices are referred to above.

All of the foregoing price influences are reflected in the domestic price level of final products and services. The average level of prices entering consumer expenditure, government expenditure, and business expenditure for capital facilities was higher in 1952 than in 1951. In so far as imported raw-material prices were lower and end-product prices higher, a wider domestic margin was implied. The price factor entering total national expenditure was therefore higher for the year 1952 than during 1951, although it indicated a relatively stable trend for the year as a whole.





# Canadian Mineral Development

THE prospector may fairly claim priority in the development of mining. In earlier and simpler days he was apt to be a rugged individual who, as the season opened, loaded his burro or canoe with a few months' supply of food, a gun, an axe and a prospector's pick, and disappeared into the wilderness to see what he could find. His field of search was usually haphazard, in a day when a large part of the country was virtually unexplored and unmapped either topographically or geologically. And it was gold he was looking for—gold and silver—industrial metals like iron, copper, zinc, lead and nickel running a rather poor second. Recognition of the ores of these metals did not call for a very high level of formal education and though many searchers had the advantage of some degree of technical training, others relied on their own keenness of observation and hard-bought experience.

The mineral field to-day presents a totally different picture. The age of atomic energy, electronics and jet engines has greatly stimulated the demand for the long-established metals and raw materials, but at the same time it has created a host of new demands largely centred around metals and minerals the names of which were formerly seldom heard outside the laboratory. Several of these are rare and, when they do occur, are likely to do so as comparatively small percentages of highly complex associations of other minerals. Their recognition in the field frequently demands a considerable knowledge of both geology and chemistry. The geiger counter, it is true, affords a fairly easy means of recognizing the presence of radio-active minerals but, in the rest of the field, visual search of areas thought to be geologically favourable, followed by field and laboratory tests of promising finds, is the usual procedure. The use of aircraft has had a tremendous effect on prospecting. The air-borne magnetometer and other geophysical devices afford means of locating promising mineralized areas, while the aeroplane itself makes it possible to reach, in a matter of hours or even of minutes, areas that formerly could have been examined only after weeks of arduous travel by land and water.

Thus the prospecting pattern has been changed in many ways. Where once a host of prospectors operated individually with little or no assistance, the work is now done by teams of highly trained men employed by mining and exploration companies and syndicates that can afford to maintain the costly equipment of aircraft and instruments that characterize the prospecting field.

When a promising indication has been found, the next step is surface trenching to determine the width, direction and extent of the ore veins. The ore-body is then outlined, usually by diamond drilling, and the approximate grade of the ore determined. If the results of the drilling are satisfactory, the deposit is opened up by underground workings and the ore is blocked out. If the ore is of a type for which standard methods of treatment have been worked out, the problem is mainly one of planning what buildings and equipment will be required. If, however, the ore is of a complex type, considerable research and experiment, sometimes extending over a period of years, may be necessary before production can proceed.

When the construction stage is reached, the location of the ore-body may bring up additional problems. The capriciousness of nature is seldom more noticeable than in the field of minerals. Cases do occur where a discovery is made in convenient proximity to civilization and where construction, transportation and processing present no more than their own inherent problems. But the find is very often in an undeveloped part of the country, devoid of roads, railroads, water access, or facilities for obtaining supplies of any kind. In these cases, development involves provision of means of access for taking in supplies and equipment and for transporting the material mined. Such provision ranges from the comparatively inexpensive construction of a few miles of road linking up with some established highway to such an enterprise as the development of the Quebec-Labrador iron deposits, which involves the construction of 360 miles of railroad through difficult and largely unexplored country as well as the building of a deep-water port.

Housing of the mine staff, again, presents varied problems. If the mine is within easy access of an established settlement, the problem is readily solved. But where development takes place scores or perhaps hundreds of miles from settlement, there arises the necessity of providing practically every amenity—shelter, sanitation, food supplies, shopping facilities, medical care, recreation—and arranging for its maintenance and administration.

It is not hard to visualize, therefore, just how complex and far-reaching in its effect on the national economy mining may be. Even a small mine will tend to become a focus for settlement and for developments in both mineral and other fields, while a vast enterprise like the Quebec-Labrador operation is almost equal to the opening up of a new country.

For a long time Canada's mineral industry has been a major element in the country's growth and development. Of late years, and particularly since the War, expansion in the mineral field has been truly phenomenal. The sixty-six-million-dollar production of 1901 had grown to \$560,241,290 by 1941 and in 1951 total production was valued at \$1,245,483,595, exclusive of uranium products, for which figures are not available. The 1951 total, of course, reflects to some extent the gradual decline in the value of the dollar, as well as fluctuations in the prices of the products themselves. Nevertheless, the volume of production has also increased steadily. The index of physical volume of output in the mining industry (1935-39=100) shows a rise from 132.0 in 1941 to 161.8 in 1951. The industry employed 128,871 people in 1951, as compared with 120,400 in 1950, and 113,200 in 1941. The tonnage of ore mined and rock quarried has shown a steady increase: 1922, 14,000,000; 1930, 35,000,000; 1941, 65,000,000; and 1951, 92,700,000.

Canada leads the world in the production of nickel, platinum and the platinum metals and asbestos, ranks second in gold and aluminum, third in zinc, and fourth in copper and lead. In the near future, Canada's production of high-grade iron ore will be increased tremendously and the recently begun output of tungsten concentrates will make Canada the largest producer of this most valuable strategic metal in the free world.

Canada's output of the five most important non-ferrous metals is very large. For the year 1951, nearly 9 p.c. of the world's lead, more than 9 p.c. of the copper, 14 p.c. of the zinc, 90 p.c. of the nickel and nearly 24 p.c. of the world output of aluminum (from imported ores) were produced in Canada.



The combined value of exports of all five metals amounted to over \$478,000,000—a total approached by no other country.

The United Kingdom and the United States shared the bulk of Canada's exports of these metals. The United Kingdom took 32.8 p.c. (in value) of the copper, 27.0 p.c. of the lead, 23.6 p.c. of the nickel, 33.0 p.c. of the zinc, and 45.9 p.c. of the aluminum. The percentages exported to the United States were: copper 35.7 p.c.; lead 52.9 p.c.; nickel 67.6 p.c.; zinc 54.0 p.c.; and aluminum 32.8 p.c.

In the 1952 mineral picture iron ore continued to be most prominent. Some 417,000,000 tons of high-grade ore have been definitely located on the Quebec-Labrador development, and further important ore-bodies are likely to be found. The railway from Seven Islands was scheduled for completion to Mile 165 before the 1952 freeze-up and an excellent airfield at this point will facilitate the transportation of material to the mine site, pending completion of the railroad. Ore shipments at the rate of 2,500,000 tons annually are expected to begin in 1954, rising to 10,000,000 tons over a three-year period.

Exploration of the iron-ore deposits in the Steep Rock area of Ontario has indicated the presence of eight major ore-bodies. Geological evidence suggests that over-all reserves may reach 500,000,000 tons per thousand feet of depth, with the possibility that the ore may extend with undiminished grade and extent to 3,000 feet or more. Steep Rock Iron Mines Limited has leased the eastern third of the Steep Rock Range to two groups of iron

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*The aeroplane has opened a new frontier to the prospector, the geologist and the mining engineer. From east to west and northward to the Arctic, potential mining areas are being subjected to an intensified frontal attack.*



and steel companies for development, and is itself concentrating on two main ore-bodies—the Errington and the Hogarth. Shipments from the former amounted to 1,325,889 tons in 1951. It is expected that 1953 shipments from these will be about 3,500,000 tons, on the basis of present plans. Demand for ore is, however, increasing so rapidly that an expansion program which would increase the output from this portion of the area to between 6,000,000 and 9,000,000 tons is under consideration. When the eastern areas come into production, the total Steep Rock output will probably be between 10,000,000 and 15,000,000 tons a year.

The great hematite deposits at Wabana, N'f'ld., have been turning out about 1,700,000 tons of ore annually, a production that will shortly be increased to 2,500,000 tons as the result of an extensive program of mechanization, which included installation of the world's longest underground conveyor-belt system. The United Kingdom and Germany have contracted for the annual delivery, over a five-year period, of 1,000,000 tons and 500,000 tons, respectively. The remainder of the output will supply the Dominion Steel and Coal Corporation mill, at Sydney, N.S., which calls for 900,000 tons a year.

The siderite ores of the Michipicoten area of Ontario are in steady demand, both because of their comparatively high (3 p.c.) manganese content and their self-fluxing property. The Helen Mine of Algoma Ore Properties Limited, with proved reserves estimated at 100,000,000 tons, is the only one presently producing. Ore is shipped to Jamestown, three miles distant, for sintering; one-third of the sinter is used by Algoma Steel Corporation, Sault Ste. Marie, Ont., and the remainder is sold, chiefly in the United States. Sinter output for 1951 was 1,188,842 tons. Algoma Ore Properties Limited announced that diamond drilling on the Alexander Mine property, east of the Helen and Victoria Mines, shows an ore-body equal in grade to that of the last-mentioned mines. The Siderite Hill deposits, three miles northeast of the Helen Mine, total 100,000,000 tons of ore with an iron content of 35 p.c.; a further 30,000,000 tons with a 41-p.c. iron content have been proved at the Britannia property, eight miles northeast of the Helen Mine. In the Goulais River area, some 50 miles northeast of Sault Ste. Marie, ore reserves with a 30-p.c. iron content are estimated at over 150,000,000 tons.

The magnetite deposits of Marmoraton Mining Company Limited near Marmora, Ont., lie beneath a capping of limestone from 100 to 150 feet thick. This capping is being removed as a preliminary to open-pit mining and the shipping of concentrates at a rate of 1,750 tons per day should start in 1954.

The magnetite deposits near Quinsam Lake, Vancouver Island, B.C., were brought into production in September 1951, and had produced over 101,000 tons of concentrates by the end of the year. Output ranged from 60,000 to 70,000 tons monthly in 1952. Extensive development work has been carried on at two other British Columbia deposits—on Texada Island, and on Elk River, Vancouver Island. The former came into production in May 1952. For the balance of the year, combined shipments of beneficiated ore from Quinsam and Texada averaged 100,000 tons per month.

Exploration and development in the petroleum and natural gas fields of Western Canada continued at a very high tempo in 1952, with expenditures amounting to an estimated \$250,000,000. During the first nine months of the year, 80 discoveries of oil were reported and 58 discoveries of natural





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Nesbitt-LaBine development in the northern Saskatchewan uranium fields. It is one of the most promising prospects of the Athabasca area.

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A geologist engaged in underground geigering in a drift at the Nesbitt-LaBine mine.



gas; the total of 138 was the highest yet reported in any one year. Alberta was credited with 104 of the discoveries, and the others were mostly in British Columbia, southern Saskatchewan and southwestern Manitoba. At the end of September 1952, Alberta's reserves of crude petroleum were estimated to be 1,800,000,000 bbl., as against an estimate of 1,500,000,000 at the end





The 400-mile pipe line from Montreal to the Toronto-Hamilton area as it neared completion. It was brought into operation on Nov. 1, 1952.

This huge tank being rolled into place during construction operations is now used to measure off the quantities of nineteen different petroleum products carried for three oil companies.



of 1951. The number of wells producing or capable of producing during the week ended Nov. 10 was 3,503 as against 2,659 for the same period in 1951. The daily average production for the first nine months of 1952 amounted to 162,000 bbl., as against a potential yield of 275,000 bbl. The highest daily average for any one week in 1952 was 217,513 bbl. and that for 1951 was 167,004 bbl. Production for the first seven months of 1952 was 31,735,610 bbl., more than 1,500,000 bbl. over the same period of 1951.

Production of crude petroleum is directly related to availability of market outlets. The Interprovincial Pipe Line from Edmonton to Lake Superior transported 17,331,165 bbl. during the first six months of 1952 (a daily average of 95,000 bbl.) as against 30,139,907 bbl. for the whole of 1951. Delivery of oil through the Trans-Mountain Pipe Line, from Edmonton to Burnaby, B.C., is expected to begin in August 1953 at the rate of 75,000 bbl. a day. Refinery and storage facilities have been greatly expanded. The capacity of the refinery at Shellburn, near Vancouver, is being doubled in anticipation of the arrival of the pipe line; when completed, the refinery capacity will be 15,000 bbl. daily, and storage capacity will be increased by 300,000 bbl. A development of major importance in this connection is the projected construction by General Petroleum Corporation of Los Angeles, Cal., of a refinery near Bellingham, Wash., with a capacity of 35,000 bbl. a day, to process Alberta crude petroleum delivered by Trans-Mountain Pipe Line. This project is in part a result of the lowering of the United States tariff on crude oil imports from 21 cents to  $10\frac{1}{2}$  cents a barrel. The new refinery of Canadian Oils Company Limited at Sarnia, Ont., opened in September 1952, is the largest built in Canada since the end of World War II. It has the first platforming unit in Canada, and one of the few yet constructed anywhere. The plant is processing 20,000 bbl. a day of Alberta crude, transported by the Interprovincial Pipe Line. Storage capacity is 2,000,000 bbl. The Moose Jaw, Sask., refinery has been enlarged and modernized, and is now the third largest in Western Canada. Capacity has been jumped from 5,000 bbl. to 15,000 bbl. daily. At the end of 1952, two oil product pipe lines were approaching completion—the Trans-Northern and the Sarnia-Toronto. The Trans-Northern is a 10-inch line, running for 400 miles from Montreal to the Toronto-Hamilton area, with an 8-inch branch line from Farran's Point to Ottawa. It was brought into operation on Nov. 1, 1952, and delivers gasoline, diesel oil, and domestic fuel oils from the Montreal refineries of McColl Frontenac, British-American and

A geologist in the Calgary laboratory of the Geological Survey of Canada examining drill cores from the oil fields. These cores are studied to determine the formations favourable to the occurrence of oil.



Shell Oil companies at a rate of 40,000 bbl. daily. Such lines require less steel than would be needed for alternative storage and shipping facilities and provide much greater flexibility in distribution, since delivery of any type of product in any required quantity can be made as and when needed, irrespective of weather conditions.

The Sarnia-Toronto line, which handles gasoline, furnace fuels, and diesel and stove oils from the Sarnia refinery, is 188 miles long. The 12-inch line from Sarnia to Waterdown divides at that point into a 10-inch branch to Toronto and two 6-inch spur lines to Hamilton. Deliveries to Toronto started on Nov. 5, 1952. Initial capacity is 39,000 bbl. a day.

Proved reserves of natural gas greatly increased during 1952. The Fort St. John field in the Peace River area of British Columbia may yet prove to possess the greatest reserves of any field yet found in Canada. Proved and probable gas reserves in the Peace River area amount to upwards of 2,506,000,000,000 cu. ft., of which 1,585,000,000,000 cu. ft. are in the British Columbia section. It is from this field that Westcoast Transmission Company's pipe line proposes to draw its supplies. Construction has been authorized by the Federal Board of Transport Commissioners, but awaits authority from the Federal Power Commission, Washington, D.C., to import natural gas into the United States.

An important outcome of the great gas and oil discoveries in Western Canada is the recent establishment of petro-chemical industries. Recovery plants have begun turning out sulphur recovered from sour natural gas in the Jumping Pound and Turner Valley fields at the rate of 21,000 tons a year. It is interesting to note that a natural gas well recently brought in at Okotoks, Alta., shows a hydrogen sulphide content of 32 p.c. by volume, ten times that of the Jumping Pound gas; a recovery plant will be erected if sufficient reserves are proved. Fort Saskatchewan, Alta., is the site of a pressure-leaching plant to treat the nickel concentrates from Lynn Lake, Man. The process requires large quantities of ammonia which will be derived from natural gas.

In the field of the industrial minerals, asbestos production, long confined to the Eastern Townships of Quebec, has been extended to Ontario, Newfoundland and British Columbia. Canadian Johns-Manville Company Limited is developing the deposits near Matheson, Ont. and drilling is also being carried out elsewhere in northern Ontario with promise of further producing properties. The Cassiar Asbestos Corporation is erecting a mill to process a large deposit of long-fibre asbestos at McDame Mountain, B.C., and Newfoundland Asbestos is doing likewise in connection with a deposit of good-quality chrysotile asbestos at Lewis Brook on the west coast of the Island. Two new producers seem assured in Quebec: Dominion Asbestos Mines Limited is building a mill with a daily capacity of 2,200 tons at St. Adrien, and United Asbestos Corporation is negotiating with American Smelting and Refining Company regarding development of the Black Lake deposits. These projects will raise the number of Eastern Townships producers to nine.

Substantial quantities of sulphur are being derived, in the form of liquid sulphur dioxide, from the gases from the new oxygen flash-smelting process now being used by International Nickel at Copper Cliff, Ont. Canadian Industries Limited has erected a plant to process the smelter gases which, when





*Construction activities at Lynn Lake, over 500 air miles north of Winnipeg, Man. The entire town of Sherridon is in process of moving northward from its exhausted copper-zinc mine to a new nickel-copper mine at Lynn Lake. The program calls for a 147-mile railway line from Sherridon, a 7,000-h.p. power plant and the mine buildings.*

operating at full capacity, will produce 90,000 tons of liquid sulphur dioxide yearly, equivalent to 45,000 tons of sulphur. The liquid gas will be used by sulphite pulp mills, and will materially ease the sulphur import situation.

There has been much activity in the Canadian salt industry. The Morton Salt Company of Chicago recently acquired a substantial interest in the Canadian Salt Company, a new concern operating plants at Lindbergh, Alta., Neepawa, Man., Windsor, Ont., and Malagash, N.S. The Company has been carrying on core-drilling in Ontario, Nova Scotia and Newfoundland to obtain data on salt deposits which might form a basis for the establishment of industries using salt as a raw material. In the course of drilling for salt at Windsor, a 70-foot bed of sandstone having a grain-size suitable for glass-making was found at a depth of 500 feet. The material could be readily processed to produce a fine grade of silica sand, which is in steady demand for making glass, abrasives, and sodium silicate. This demand has stimulated interest in possible domestic sources of supply, as a result of which three properties, near Montreal, Ottawa, and Gananogue, are being considered for development. Until quite recently the major portion of Canada's requirements of silica sand have had to be imported.

Fluorspar, a somewhat scarce mineral, is the principal source of commercial fluorine and is also in steady and increasing demand in the metallurgical, glass, ceramic and plastic industries. Newfoundland is the only important producer in Canada, the deposits of high-grade material at St. Lawrence being among the richest known. Two companies, St. Lawrence Corporation Limited and Newfoundland Fluorspar Limited, are at present producing. The former of these has recently received a loan from the United States Government to enable it to supply the United States with 50,000 tons a year for three years. The latter company, a subsidiary of Aluminum Company of Canada, is advancing production to fill the requirements of the expanding

aluminum developments in Eastern and Western Canada. The Reynolds Metals Corporation, a United States aluminum producer, has applied for rights to develop a new fluorspar deposit located on Iona Island, in Placentia Bay, Nfld. Fluorspar is an essential material in the production of aluminum, being used in the making of both aluminum fluoride and artificial cryolite.

Cement consumption is generally taken as a valuable index of industrial activity. Canada's cement industry has greatly expanded in recent years, and by early 1953 annual production capacity should be approximately 22,500,000 bbl., practically all of which will be used in Canada. Lime products, also reflect activity in the industrial, agricultural and construction fields, and here, too, new records of production are being constantly attained.

Thus, the Canadian mining industry which has been establishing annual production records regularly since 1946 seems likely to repeat the achievement in 1952 despite declines in the prices of several of the principal mine products. Canada has come a long way in the development of its mineral resources since those early years a century or more ago when the industry consisted of a few scattered and, for the most part, small operations. Little was it realized then that mining was destined to play a leading role not only in the opening up of the country to settlement and industrial development, but in the enhancement of the Canadian economy as a whole. This role began to take shape during the second half of the nineteenth century which, in the mining field, was marked by such important events as the discovery of placer gold on the lower reaches of Fraser River in British Columbia, of the great Sullivan lead-zinc-silver ore-bodies at Kimberley in that Province, of asbestos deposits in the Eastern Townships of Quebec, of nickel-copper ore in the Sudbury area of Ontario, and, near the close of the century, the discovery of gold in Yukon Territory which resulted in the far-famed Klondike rush.

By 1900 Canadian mineral production had climbed to an annual value of \$64,400,000 and although considerably more than a third of this production came from British Columbia and Yukon Territory a lively interest in the search for mineral deposits had been awakened and prospectors were blazing trails into new areas mainly in a search for gold. Construction of the two transcontinental railways had been completed and this, in turn, fostered increasing interest in mineral exploration.

Although the industry was still in an early stage of growth it was already showing considerable evidence of the great role it would later play as a major contributor to the economic well-being of the country. This became increasingly apparent largely as a result of a succession of important discoveries and other developments during the period between 1900 and 1921. The discovery of cobalt-silver ores in the Cobalt camp and the discoveries of gold that gave birth to the Porcupine camp were followed by the gold discoveries that brought the Kirkland Lake area into prominence. Later, in Manitoba, the Flin Flon copper-zinc deposits were disclosed, and then in 1921 the discovery of the Noranda ore-bodies caused interest to turn to that section of western Quebec now so highly productive of metal wealth.

By 1925 mining had become a major industry in every province except Prince Edward Island, which produces no minerals. From that year on, the record of the mineral industry has been particularly impressive. Even during the depression years when activities in most industries were at low ebb, the then major branch of mining—the gold industry—witnessed the greatest



expansion in its history. Again during the war years when the industry was called upon to keep production up to the highest possible level in order that Canada could supply its full share of the munitions of war needed by the Allied countries, Canada produced nickel, copper, lead and zinc to a total value of approximately \$1,000,000,000. For a time it supplied close to 40 p.c. of the Allied requirements of aluminum.

Since the War the industry has been spearheading much of the industrial progress in Canada. Many of the large projects being undertaken, on which huge expenditures are being made, are directly related to mineral resources development. Expenditures on oil exploration and development alone in 1952 approximated \$250,000,000. Add to this the amounts, totalling many hundreds of millions of dollars, that are being spent on the development of iron-ore deposits, on the expansion and modernization of productive facilities in the base-metal industry, on railway construction to serve new mining areas, on hydro-electric power development, much of it to serve mining projects and mining areas, and on the establishment of new industries resulting from mineral development, and the beneficial influences of mining on the Canadian economy becomes clearly evident.

The indications are that the tempo of activities in the mineral industry will continue to rise. Recently, for instance, announcement was made of the disclosure of large deposits of iron ore in the Labrador Trough, the formation in which the Quebec-Labrador deposits are located. And from other parts of the country also come reports of new and important developments in mining. The industry is continually on the move and, considering the nature and extent of the many operations and projects, it seems safe to forecast that still greater achievements are in store.

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*The Consolidated Mining and Smelting Company plant at Trail, B.C. is at present undergoing a \$65,000,000 expansion and modernization program. The Company's vast mine at Kimberley in the southern interior of the Province is considered the biggest non-ferrous metal mine in the Commonwealth.*







*The seventh session of the United Nations General Assembly, opened on Oct. 14, 1952, was the first to be held in the new headquarters building at New York. Canada's Secretary of State for External Affairs, the Hon. Lester B. Pearson (centre) is the Assembly President. On his right is U.N. Secretary-General Trygve Lie and on his left is Andrew Cordier, Executive Assistant to the Secretary-General.*

# Canada's External Relations

SINCE the Second World War, Canada has been playing an increasingly important role in international affairs. In part this has been due to the remarkable internal economic expansion which has resulted in increased external trade and which has made economically possible the assumption by Canada of larger external responsibilities. In part, however, it has been due to the pressure of external developments: the menace of Communist imperialism has compelled closer association with other free nations and has also induced nations of the free world, Canada among them, to assume more specific obligations for the preservation of peace.

The Government looks to the Department of External Affairs as its main agency for providing information and advice on external relations, and for carrying out the Government's policies abroad. The Department deals with foreign governments through Canadian missions abroad or through the missions of other countries at Ottawa. It gathers information about developments in international affairs and reports on these to the Minister who reports in turn to the Cabinet and to Parliament. High Commissioners, Ambassadors, Ministers and Consular Officers represent Canada abroad; their tasks include transactions with other governments, the protection of Canadian interests, and the broad obligation of making Canada known and understood. The Department arranges participation in international organizations and provides delegations, in co-operation with other departments and agencies, for international conferences. In a recent year the Canadian Government was represented at 146 such international gatherings.

Canada's increasing international responsibilities have induced the growth of the country's foreign service. At the end of 1952, Canadian diplomatic and consular missions were located as follows:—

## **Embassies (21)—**

Argentina  
Belgium  
Brazil  
Chile  
Colombia  
Cuba  
France  
Germany  
Greece  
Ireland  
Italy  
Japan  
Mexico  
The Netherlands  
Peru  
Turkey  
U.S.S.R.  
United States  
Uruguay  
Venezuela  
Yugoslavia

## **Legations (9)—**

Austria  
Czechoslovakia  
Denmark  
Finland  
Norway  
Poland  
Portugal  
Sweden  
Switzerland

## **Offices of High Commissioners (6)—**

Australia  
India  
New Zealand  
Pakistan  
South Africa  
United Kingdom

## **Consulates General or Consulates (9)—**

Brazil  
São Paulo\*  
Philippines  
Manila\*,†  
United States  
Boston†  
Chicago†  
Detroit\*  
New Orleans\*  
New York†  
Portland, Me.†  
San Francisco†

## **Permanent Delegations and Missions (4)—**

Berlin (Mil. Mission)  
Geneva (UN)  
New York (UN)  
Paris (NATO and OEEC)

\* Administered by the Department of Trade and Commerce.  
† Honorary Vice-Consulate.

† Consulate General.

Canada does not maintain posts in Iceland and Luxembourg, but the Minister of Norway is accredited to Iceland and the Ambassador to Belgium is accredited to Luxembourg.



*The Canadian Embassy at Paris. July 12, 1952, marked the 70th anniversary of Canadian representation in France.*

The Department of External Affairs assists other departments of government in their dealings abroad and co-ordinates their activities in other countries. The most active of these is the Department of Trade and Commerce which stimulates the growth of Canada's external trade through the work of its Trade Commissioner Service. This Service is long-established and is widely known as a highly effective organization. Trade and diplomatic representatives work side by side abroad and in many places share the same office establishment. At some points where there is no diplomatic representative the trade officer has consular status. The Departments of National Defence, Defence Production, Agriculture, Citizenship and Immigration, Health and Welfare, and Labour have officials in certain countries for their own special purposes; they normally serve on the strength of a diplomatic mission.

A primary duty of Canadian representatives abroad is to provide for the people of the country to which they are accredited information about Canada and its people, its achievements and its way of living. Department of External Affairs posts are supplied with publications, films and other materials likely to be of interest to press, radio and organized groups. The policies of all departments and agencies of the Government concerned with the projection of information about Canada to other countries are correlated through an inter-departmental committee. In such operations government agencies maintain close liaison with business firms and associations and with voluntary organizations that have connections in other countries. Government and business alike have welcomed many foreign journalists and radio broadcasters to Canada and have helped them to obtain a broad and representative picture of Canada for the benefit of their countrymen. The Government is making use of money standing to its credit in France and The Netherlands to send several dozen Canadian students and fellows abroad for study.

Great efforts have been made by the Government since the end of the War to enlarge the volume of Canadian trade. The Trade Commissioner Service abroad has been strengthened. Canada has supported international action to reduce trade barriers. When the country was suffering from a



serious shortage of U.S. dollars, every effort was made to encourage exports to dollar areas and to encourage imports from soft-currency countries. The establishment of the International Trade Fair in 1948 was evidence of interest in an expanding volume of trade. These efforts have borne fruit and export trade has continued to flourish despite widespread discriminatory restrictions against dollar goods. The volume of exports is now about 80 p.c. greater than it was before the War.

External relations are by no means confined to formal government relationships. The people of Canada have developed increasing contacts with other peoples in business, industry, education, science, cultural activities and in other fields of human endeavour. Approximately 150 Canadians have joined the international secretariat of the United Nations and possibly that many again are employed at various tasks by the Specialized Agencies in health, economic, cultural and other fields. Several dozen Canadians are now abroad for periods varying from two months to two years to help underdeveloped countries improve their techniques in industry and public administration. Canada's major interest in trade takes many thousands of business men abroad for short or lengthy periods and in many foreign capitals Canadian communities have grown up whose residents share inevitably in the strengthening of bonds between Canada and their adopted homes. In some countries Canadian-owned firms have played an important part in the development of industries and utilities.

### ***Canada's External Policy***

External policies are based broadly on the fundamental objectives of Canadian national life—such as the desire for national unity, the need for peace and security, belief in political and personal liberty, and interest in trade—and these affect every aspect of Canada's dealings with other countries. Such policies, however, will always be influenced by Canada's special relationships as a member of the Commonwealth and by its friendship and economic links with the United States, as well as by its historical, racial and cultural ties with Europe. External policy has also been strongly influenced by recent developments in international affairs, especially by the changes in

NATO students from the Danish Air Force, the French Air Force and the French Fleet Air Arm on a familiarization tour of a Canadian air station prior to commencement of training. They are examining navigation instruments used for classroom study.



the world situation that have unfolded since the War. It may be useful to summarize a few of the more significant developments that have recently occurred in Canadian external policy.

**North Atlantic Treaty Organization.**—As early as 1947 the present Prime Minister, then Secretary of State for External Affairs, pointed to the failure of the United Nations to establish adequate arrangements for the maintenance of international peace and security and forecast the formation of an association, within the terms of the United Nations Charter, of those nations willing to assume more specific international obligations for collective defence. Successive developments led to agreement in April 1949 on the North Atlantic Treaty, signed by twelve nations and later adhered to by two more. Under the Treaty members undertake to regard an armed attack upon any member as an attack upon all. Members also undertake "by means of continuous and effective self help and mutual aid", to "maintain and develop their individual and collective capacity to resist armed attack". The Treaty was given wide support in Canada and was approved by Parliament without division. It is a major element in Canadian foreign policy.

Membership in NATO has entailed a major expansion of Canada's armed services and the specific allocation of some of them to NATO Commands. By the end of 1952, 24 ships of the Royal Canadian Navy formed part of the forces available to the NATO Command for the North Atlantic for the defence of North Atlantic ocean routes and it was expected this would be increased to 52 ships by 1954. The 27th Infantry Brigade, which was specially organized for NATO purposes, has been stationed in Western Germany since the late autumn of 1951 under the NATO Command for Europe, and during 1952 Canada stationed four fighter squadrons of the RCAF in Western Europe and has undertaken to increase these forces to 12 squadrons by 1954. Canada's military contributions to NATO must be governed of course by other commitments. The direct defence of Canada is a prime responsibility and forces at home are defending territory expressly included in the area of the Treaty. A further serious commitment is that to the United Nations for repelling aggression in Korea.

Canada has also made substantial contributions to NATO in the form of mutual aid. Over a three-year period ending Mar. 31, 1953, Parliament appropriated about \$685,000,000 for mutual aid. Arms and equipment for approximately one infantry division each have been given to Belgium, Holland and Italy and considerable quantities of other material have been made available to other countries. Other equipment and supplies have been provided to NATO countries from new Canadian production. It has also been possible under this appropriation to train in Canada air crew for NATO countries, and when this plan is in full operation it is expected that about 1,400 air-crew trainees from abroad will take advantage of Canadian facilities each year.

Canada shares the view that if NATO is to survive it must become much more than a defensive alliance. Under Article 2 of the Treaty the parties recognize their common political, cultural and economic interests and agree to co-operate in strengthening their free institutions and eliminating conflict in their national economic policies. Events have compelled members to give priority to defence and security but increased co-operation in these other fields is an important long-range objective.

Two squadrons of the No. 2 Fighter Wing, R.C.A.F., at Grostenquin, France, awaiting the arrival of the third and fourth squadrons.



A unit of the 27th Canadian Infantry Brigade going through rigorous field training just north of Hanover, Germany.



**United Nations.**—Canada regards the United Nations as neither a military alliance against Communism nor an embryonic form of world government. Essentially, the United Nations Charter is a multilateral treaty which has been ratified by the great majority of sovereign states. It is a treaty with enormous scope and one that has led to the establishment of an agency for the conciliation of political disputes and for the organization of collective action against aggression if conciliation fails. It provides, together with the Specialized Agencies, numerous opportunities for international co-operation in wide fields of economic, social, cultural and humanitarian endeavour. It





*The International Civil Aviation Organization of the United Nations has its permanent headquarters at Montreal. Canada's Minister of Transport, the Hon. Lionel Chevrier, is shown addressing the 1952 annual assembly of the 57-nation organization. Canada has participated fully in all phases of the Organization work and made valuable contributions to the understanding and solving of international aviation problems.*

is a potentially useful agency for supervising the evolution to self-government of many peoples now living in dependent status. The United Nations also provides points of diplomatic contact not elsewhere available and it would not be wise to under-estimate the possible fruits of such contacts. Effective functioning of the United Nations, particularly in the field of security, assumes unanimity of the Great Powers. Not only does this unanimity not exist, but there is acute division between them. The United Nations did not create this division; the division would exist, and almost certainly in a more dangerous form, if there were no world organization. Because the United Nations is a mirror of the world, it cannot be said to have failed because it reflects an unhappy picture. This division has seriously retarded progress in the United Nations, particularly in the political field, but it has not prevented that organization from achieving a real measure of success in economic, social and humanitarian fields.

In the economic and social fields the activities of the United Nations and of the Specialized Agencies touch many aspects of the daily life of Canadians. It has been the concern of Canadian representatives to stress the need for co-ordination of activities of these Agencies and also the necessity for considering not only the desirability but the feasibility of each project proposed. Canada has shown repeatedly, however, that it is prepared to

support by deeds as well as by words those projects regarded as both desirable and feasible. Examples of this have been the Canadian contributions to the Expanded Programme for Technical Assistance, to the relief of Palestine refugees, to relief and reconstruction in Korea, and to the International Children's Emergency Fund. These have been based on the principle that, in the long run, the maintenance of peace is inseparably bound up with the achievement of economic and social progress.

Canada's second term of membership on the Economic and Social Council began January 1950 and ended at the close of 1952. Canadian delegations attending its sessions have tried to give practical evidence of the importance which Canada attaches to the work of international economic and social co-operation. In addition, Canada contributed to and participated in all of the Specialized Agencies. Twelve of these have been formed; they are concerned with agriculture, finance, aviation, labour, health, shipping, refugees, trade, telecommunications, postal services, meteorology and educational, scientific and cultural matters.

**Korea.**—Following invasion of the Republic of Korea by the Communist armies from the north, the United Nations called for armed support from member nations to help repel aggression. Canada responded with destroyers and air transport services, which commenced activities in July 1950, and an army brigade whose formation was announced the following month. During

*H.M.C.S. Nootka in Korean waters. Three Canadian destroyers are in continuous service in the Korean theatre of war.*





1952 little change took place in the military situation in Korea although there were from time to time sharp military actions in which Canadian Forces played a courageous part. Throughout the year constant efforts were made to bring about a cease-fire but these had not been successful by the end of 1952, the main point of disagreement being repatriation of prisoners of war. The United Nations had stood throughout by its fundamental principles of resisting unprovoked aggression and of taking collective steps to restore peace and international security.

To unify the peninsula for the Koreans, however, would now require such large forces that defences against Communist aggression elsewhere would be weakened. More important, the Chinese intervention brought with it the risk of the Korean action developing into full-scale war. If that happened the purpose of intervention in Korea—to punish aggression and thus prevent a global war—would be defeated. For these reasons Canada has favoured a negotiated peace along the present battle lines, provided that it is an honourable peace. Though the unity of Korea may not be secured, United Nations intervention has accomplished its main aim of turning back the aggressors.

To help Korea recover from its war injuries the United Nations created the the UN Korean Reconstruction Agency charged with the physical rehabilitation of Korea. Canada endorsed this action and has contributed \$7,250,000 to the Agency.

**Commonwealth.**—Canada's relations with Commonwealth countries have continued on a friendly, intimate and helpful basis. Great value has been placed on the new association with India, Pakistan and Ceylon and on the bridge they form between other Commonwealth countries and the peoples of south and southeast Asia. A number of major meetings have been held in recent years including those of Commonwealth Foreign Ministers at Colombo in January 1950, a meeting of Prime Ministers at London in January 1951, and a meeting of Prime Ministers again in December 1952. The Colombo Plan for improving the agricultural and industrial conditions of countries of southeast Asia grew out of the first of these meetings. A principal subject of Commonwealth consultation has been the dangerous international situation



*First consignment of the \$10,000,000 allotment of wheat provided by Canada for the relief of famine in India under the provisions of the Colombo Plan. The wheat was shipped from Canada's West Coast ports early in 1952.*





*Donald M. Haywood, Canadian fishery technician, and Paul Sykes, Canadian Government Trade Commissioner, with their families at Colombo, Ceylon. Mr. Haywood is investigating the possibility of making a larger proportion of the fish caught off Ceylon available to the growing population.*

arising from the Communist aggression in Korea and from the attitude and actions of the Communist régime in China and of the Soviet Union and its satellites. The peace settlement with Japan occupied attention in Commonwealth discussions, as did developments in China.

Numerous discussions and a heavy flow of correspondence have been devoted not only to political matters but as well to problems of an economic, scientific or technical character within the Commonwealth and Canada has shared in the work of standing bodies devoted to subjects of common concern.

At the London Economic Conference in December 1952, the Prime Ministers of the Commonwealth sought to move forward to a solution of the sterling area's economic difficulties and concerned themselves with possible methods of expanding world production and trade. At this Conference the Prime Ministers of seven Commonwealth countries and the Finance Ministers of two others participated. Countries represented were the United Kingdom, Canada, Australia, New Zealand, India, Pakistan, Ceylon, South Africa and Southern Rhodesia.

A fresh sign of the adaptability of Commonwealth associations was the decision of Commonwealth Prime Ministers in December 1952 to seek constitutional approval in their respective countries for changes in the Royal Style and Title which would take into account the various national interests of the member nations of the Commonwealth.



*Members of the Highways and Bridge Erection Mission from India and Pakistan discussing the tunnelling operations at the Spray Lakes Power Development, Alta.*

**South and Southeast Asia.**—Canada is fortunate in being technically well advanced and well endowed with natural resources, and therefore is in a position to lend a helping hand to nations that have lagged behind Europe and North America in economic development. Thus technical co-operation has in recent years been an important element of Canada's external relations. Canada has been giving aid to southeast Asia at the rate of \$25,000,000 a year under the Colombo Plan and through this means is making a start at helping India to expand its food production. Two urgent undertakings, made possible by Canadian funds, have been an irrigation and hydro-electric project in West Bengal and an improvement and expansion of the transport system for the State of Bombay. Canada is helping Pakistan through co-operation on major irrigation projects and the construction of a cement mill. Canada has arranged to make an aerial survey in Pakistan leading to assessment of its resources, is assisting in the development of an experimental farm there and is providing large quantities of railway ties to improve transport. A number of students and government officials from both countries came to Canada during the year for technical training under the Colombo Plan.

For the short-term projects of technical co-operation Canada earmarks \$400,000 yearly under the Colombo Plan and over the past two years has



One of the two aircraft being used for the two-million-dollar resources inventory now under way in Pakistan. The survey, a Canadian contribution under the Colombo Plan, is being carried out by the Photographic Survey Corporation of Toronto.



given \$1,600,000 to aid the United Nations in its work in this field. One view of technical co-operation was given in a booklet distributed by Canada in Asia, as follows: "Although we may have something to give and to teach we have also much to receive and to learn. In this vast country of ours we have found out how we may live and prosper; but from the East with its ancient cultures we have much to learn of the abiding things that bring comfort and delight to the mind and heart."

**United States.**—Canada's relations with the United States remained close during 1952. Relations between the two countries took on increased importance by reason of the numerous common issues with which they were concerned, such as the problems of the joint defence of North America, and because of the ever-growing role of the United States as the most powerful country of the free world. These relations were conducted on both sides with frankness and friendliness which testified to the good feelings between the two peoples. Frequent consultation took place on matters relating to

Technician from Pakistan examining a virus-infected spinach plant in a Dominion Experimental Farm laboratory.





the Korean situation. Defence preparations in both Canada and the United States were accelerated and plans advanced for greater industrial co-operation in the defence field. Close co-operation continued between the armed forces of the two countries.

Progress was made during 1952 in preparations for the development of the St. Lawrence River. During the year the Canadian Government announced that it was prepared to build the Seaway as an all-Canadian project with the basic power development in the international section of the St. Lawrence River to be undertaken by the Hydro-Electric Power Commission of Ontario and an entity to be named by the United States. The International Joint Commission approved the construction of the power works and the United States Government was advised that Canada considered the new plan to have superseded the draft agreement of 1941 between the two countries on St. Lawrence development. The only step remaining at the end of the year to make the project possible was the authorization of an entity in the United States to act along with the Ontario Hydro in the power development. The development of a deep waterway would be a second step; the Canadian Government was prepared to undertake all construction in the international section of the river on its own side of the boundary, or alternatively, if the United States were to come forward with a satisfactory practical proposal for joint construction, it was prepared to co-operate in developing a joint waterway.

**Europe.**—The apparent trend towards the integration of Western Europe has been of considerable interest to Canada, and particularly the project for a European Defence Community. This latter project has been proposed as a means of associating the Federal Republic of Germany in the defence of Western Europe, and indirectly with the North Atlantic Treaty Organization. Canada has followed these developments closely and sympathetically. In mid-1951 Canada terminated the state of war with Germany and direct diplomatic relations between the two countries were resumed. In 1951 Canada, as well as the United States, became associated with the Organization for European Economic Co-operation on an observer status and has been active in its work, taking part for the first time in 1952 in compiling its report on the current economic situation. This report reviews present conditions and makes suggestions for future co-operation in solving the basic problem of the dollar gap between Europe and North America.

**Latin America.**—Canada's relations with Latin America have continued to develop in recent years. During 1952 agreements were reached with the Governments of Uruguay, Venezuela and Colombia to exchange ambassadors, and the number of diplomatic missions and trade offices which Canada maintains in Latin American countries rose to twelve. The further development of trade with Latin America remained a principal Canadian objective. Latin America is the third geographic trading area for Canada, ranking immediately after the United States and the United Kingdom, and trade is carried on at something like seventeen times the level of the pre-war years. Through two-way trade and through cultural and educational exchanges Canada seeks to strengthen its ties with Latin America and to encourage the growth of mutual goodwill. While not a member of the Organization of American States, Canada has maintained membership in several Inter-American agencies and

has continued the practice of sending representatives to conferences of specialists dealing with matters of common interest. Canadian industrial, financial and public utility concerns are established in Latin America and their activities have led to the growth of Canadian communities there. Early in 1953, the Minister of Trade and Commerce led a goodwill and trade mission, composed of Canadian businessmen and government advisers, to nine Latin American countries.

**Japan.**—Canada is a Pacific as well as an Atlantic power and security as well as humanitarian considerations compel it to give attention to relations with countries of Asia. There, as elsewhere, Canada's policy is based on the twin principles of preservation of peace and stimulation of international trade. Parliament has ratified the Japanese Peace Treaty, signed at San Francisco, which although not fully satisfactory is important to Canada. It restores Japan to sovereignty and permits it to make its contribution to the peace and security of the Pacific. It also restores to Japan control of its commercial destiny and opens new opportunities for trade with this country. To clear away a source of possible difficulty in relations with Japan, Canada joined with the United States in negotiating with Japan a convention on fishing in the North Pacific.

**Middle East.**—There have been increasing manifestations of an intensive nationalism throughout the countries of the Middle East and North Africa. This has led to a grave turn of events in some countries. For the first time in its history Canada, though not immediately affected, has had to turn its attention seriously to this region.

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*Loading crates into an RCAF North Star at Tacoma, Washington, for shipment to Japan and Korea.*





*Sixteen hundred and eighty may be regarded as the birth-year of Canada for in that year, under the leadership of Samuel de Champlain, the first permanent settlement was made in the shadow of the great rock of Quebec. The roots of the slender colony struck deep and from them grew a great and vigorous nation. Here is part of the old walled city of Quebec as it is to-day.*



# Advance to Nationhood

ALTHOUGH the forbears of Canada's Eskimos and Indians came to the New World from Asia perhaps thousands of years ago, and the roving Norsemen from northern Europe discovered the island stepping stones to North America about A.D. 1000, the permanent settlement of Europeans on Canadian soil dates back only 345 years to the founding of Quebec (1608).

For a century and a half Canada remained a colonial possession of France, under an ambitious policy that sacrificed the interests of settlement and agriculture, of home-building in a new land, to a magnificent advance of exploration and empire that led soldiers of the Cross and the Crown, martyrs, fur-traders and explorers up sparkling rivers far into the interior—thereby disclosing an inland continent for future development. In 1763, following an extended period of imperial rivalry that brought the far-flung French trading-posts into conflict with the expanding English Atlantic colonies and the charter rights of the Hudson's Bay Company in the Northwest, France ceded all her vast possessions in North America (with the exception of Louisiana) to Great Britain.

The cession of 1763 ensured for Canadian life a basic pattern of cultural dualism. Apart from a few hundred British and colonial merchants and soldiers settled in Quebec and Montreal after the conquest, the lower St. Lawrence remained wholly French, secure in their language, religion and customs, while adventurous New Englanders founded pioneer communities in Nova Scotia, first opened to English settlement at Halifax (1749). Following the American War of Independence (1783), the Loyalists with their significant Anglo-American influences poured into the Maritime Provinces, the upper St. Lawrence, the Eastern Townships of Quebec, the north shore of Lake Ontario and the Niagara Peninsula.

Close upon the Napoleonic Wars (1815), economic dislocations of the new industrialism in Britain sent to Canada scores of thousands of colonists seeking a new life abroad. The new colonists—English, Scots, Ulster and Southern Irish—carved out pioneer communities in the fertile peninsula between Lakes Ontario, Erie and Huron, while on the edge of the prairies by the forks of the Red and Assiniboine Rivers the offspring of French-Canadian Nor'Westers, Scots and English Hudson's Bay Company factors built the first agricultural settlement between the Great Lakes and the Rockies.

In 1846, the forty-ninth parallel was extended as the international boundary across the prairies to the Pacific; and none too soon, for the discovery of gold in the sands of the Thompson and Fraser Rivers a decade later quickened the westward march of settlement as thousands of prospectors and miners from California and other lands swarmed into the area. By 1866, Vancouver Island had joined with the mainland settlements to form the Province of British Columbia.

Canadian concern for the future of Rupert's Land and the North-West Territories—fur-trading domain of the Hudson's Bay Company—envisaged as a new frontier for settlement; manufacturing, commercial and railway interests convinced of the benefits of transcontinental expansion; provincial



*Lower Fort Garry, near Winnipeg, Man., one of the forts built in the early nineteenth century at the junction of the Red and Assiniboine Rivers. The history of this area is a romance of exploration, fur-trading, colonization and armed conflict, and later of advancement and development.*

leaders seeking defensive strength and economic prosperity in political union and envisaging a British-American nation extending from sea to sea—such were the concepts of the 'Fathers of Confederation' that prompted in 1867 a Canadian federation of the four original colonies of Upper and Lower Canada (renamed Ontario and Quebec), Nova Scotia and New Brunswick. Upon the acquisition by Canada of Rupert's Land and the North-West Territories in 1870, the Red River Settlement was given provincial institutions and liberties under the name of 'Manitoba', while the pledge of a transcontinental railway linking the Pacific with the Canadian East and offering a future of rich cargoes and ocean ports, brought British Columbia into the Union in 1871. The garden province of Prince Edward Island entered on liberal terms in 1873.

Although a free-homestead policy and the construction of the Canadian Pacific Railway brought a new wave of settlement to the prairies during the last quarter of the nineteenth century, the migration reached flood proportions only during 1896 to 1913 when an energetic immigration policy found a favourable international environment in a period of unimpeding peace, trade and travel. As immigration mounted from 17,000 in 1896 and 141,000 in 1905, to over 400,000 in 1913, the industrial East became electric with



visions of a twentieth century that would be Canada's. When the Territorial population reached an estimated 418,000 in the spring of 1905, the Canadian Government created the two new prairie provinces of Alberta and Saskatchewan.

The growth of Canada's population from 5,371,315 in 1901 to 11,506,655 in 1941 and 14,009,429 in 1951 wrought remarkable changes in the pattern of Canadian life. Even as the settlement of the West lifted Canada to a high place among the wheat-producing countries of the world, so in the inter-war and post-war periods it underwent such a stimulus in the mining, manufacturing, construction and transport industries, in finance, trade and defence, as to raise the nation into the ranks of the first half-dozen industrial powers.

By the middle of the twentieth century, when Britain's oldest colony of Newfoundland became Canada's tenth province, thereby fulfilling the vision of the Confederation Fathers, the new nation faced the future with confidence—a nation heavily endowed with natural resources of tremendous potentialities for the betterment of human welfare; a nation of two major cultures, yet embracing the gifts of hundreds of thousands of newcomers from many lands; a nation treasuring priceless cultural and institutional heritages from the Old World and the New that have been so adapted as to give Canada a consciousness of qualities that set it apart from Britain, France and the United States and justify its aspirations for a distinct national entity that recognizes and yet harmonizes cultural diversities within the framework of a wider co-operation won from pragmatic experience with the pressures of nineteenth and twentieth century forces and events.

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*The linking of Canada's vast regions into a single entity and the opening up of the country to rapid development began with the building of the railways. The first transcontinental line was completed in 1885.*







Rural Quebec.

# Canada—The Country

## • Geography

CANADA comprises the whole northern part of the North American Continent, excepting Alaska, including the Arctic Archipelago lying between the 60th meridian on the east and the 141st meridian on the west and extending to the North Pole. Canada is bounded on the west by the Pacific Ocean and the 1,539·8 linear miles of Alaskan territory, on the east by the Atlantic Ocean, Davis Strait and the dividing waters between Ellesmere Island and the Danish territory of Greenland, and on the south by the United States, a distance of 3,986·8 miles.

The total area of the country is 3,845,774 sq. miles. Politically, that area is divided into ten provinces and two 'territories', the land and water areas of which are as follows:—

*Approximate Land and Fresh-Water Areas, by Provinces and Territories*

| Province or Territory       | Land             | Fresh Water    | Total            |
|-----------------------------|------------------|----------------|------------------|
|                             | sq. miles        | sq. miles      | sq. miles        |
| Newfoundland—               |                  |                |                  |
| Island of Newfoundland..... | 40,559           | 2,175          | 42,734           |
| Coast of Labrador.....      | 107,435          | 5,195          | 112,630          |
| Prince Edward Island.....   | 2,184            | --             | 2,184            |
| Nova Scotia.....            | 20,743           | 325            | 21,068           |
| New Brunswick.....          | 27,473           | 512            | 27,985           |
| Quebec.....                 | 523,860          | 71,000         | 594,860          |
| Ontario.....                | 363,282          | 49,300         | 412,582          |
| Manitoba.....               | 219,723          | 26,789         | 246,512          |
| Saskatchewan.....           | 237,975          | 13,725         | 251,700          |
| Alberta.....                | 248,800          | 6,485          | 255,285          |
| British Columbia.....       | 359,279          | 6,976          | 366,255          |
| Yukon Territory.....        | 205,346          | 1,730          | 207,076          |
| Northwest Territories.....  | 1,253,438        | 51,465         | 1,304,903        |
| <b>Canada.....</b>          | <b>3,610,097</b> | <b>235,677</b> | <b>3,845,774</b> |

Canada's fresh-water area is extensive, constituting over 6 p.c. of the total area of the country. Its inland waterways, particularly with respect to transportation and the development of electric power, are among the most vital influences in the national economy. In Eastern Canada, the Great Lakes and St. Lawrence drainage basin dominates all others and forms an unequalled system of navigable waterways through a region rich in natural and industrial resources. From the head of Lake Superior to the entrance of the Gulf of St. Lawrence the sailing distance is 2,338 miles. The Saskatchewan and Red Rivers in the middle west and the Fraser, Thompson and Skeena in British Columbia are important avenues of transportation. The Mackenzie River which, with its headwaters, is the longest river system in Canada, constitutes the natural transportation route through the Northwest Territories down to the Arctic Ocean. The Great Lakes, through which the International Boundary passes, have a combined area of 95,170 sq. miles and Lakes



*The Restigouche River Valley in New Brunswick.*

Winnipeg, Great Slave and Great Bear range in size from 9,000 to 12,000 sq. miles. Eight other lakes are over 1,000 sq. miles in area and the smaller lakes are innumerable.

Physically, Canada divides naturally into four major Regions. The Appalachian Region includes most of that part of the country lying east of the St. Lawrence Valley and is generally mountainous or hilly, the highest peak (4,200 ft.) being Mount Jacques Cartier in central Gaspé. Newfoundland is a plateau of low rolling relief with its highest elevations along the western margin where summits rise to more than 2,500 feet above sea level. In central New Brunswick there is a rugged area with summits rising to over 2,000 feet; to the east of this is a lowland area extending over the remainder of the Province and all of Prince Edward Island and rising nowhere more than 600 feet above the sea. Nova Scotia is largely an upland region which, in the northern part of Cape Breton Island, reaches elevations of 1,500 feet.

The Canadian Shield is a vast V-shaped area of approximately 1,800,000 sq. miles surrounding Hudson Bay and including Labrador, almost all of Quebec north of the St. Lawrence Valley and northern Ontario and stretching in a diagonal line from southern Manitoba west and north almost to the Mackenzie River. This area is for the most part of low relief, rarely rising more than 1,500 to 2,000 feet above sea level. Its low hummocky hills and ridges are separated by depressions commonly occupied by lakes or muskegs. Lakes of all sizes and shapes, containing many islands dot practically the entire region, in places giving the appearance of a drowned area with only the ridge tops appearing. This Region is Canada's great storehouse of mineral wealth, particularly of metals.

The Interior Plains Region is part of the great plains of the interior of the continent that stretch from the Gulf of Mexico to the Arctic Ocean. In Canada it extends from the Canadian Shield on the east to the Cordilleran



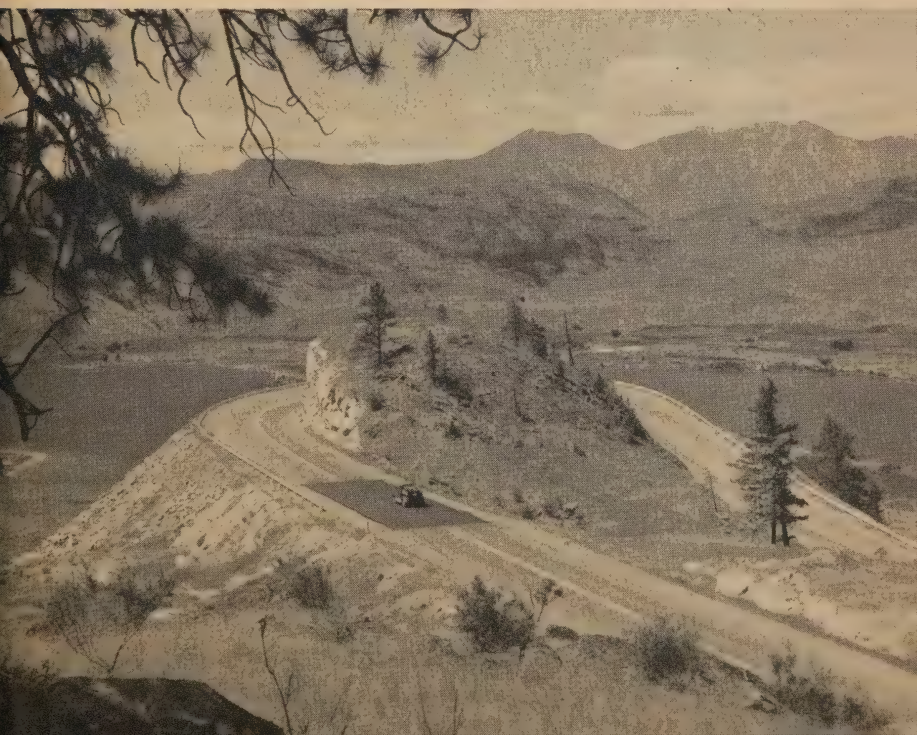
Region on the west and is about 800 miles wide at the United States border, tapering to 100 miles at the mouth of the Mackenzie River. The Plains slope gently eastward from an elevation of 4,000 feet in western Alberta to about 500 feet in southern Manitoba; they show a flat surface interrupted by deep-incised valleys and by many flat-topped hills. The rich soil along with favourable climatic conditions accounts for this being the great wheat-producing area of Canada. It is this area also that contains the vast oil, gas and coal resources of Western Canada. The St. Lawrence Lowland and the Hudson Bay Lowland are regarded as outliers of this Region. The St. Lawrence Lowland, occupying the triangular area lying between Georgian Bay and Lake Ontario and taking in the St. Lawrence Valley east as far as Quebec city, contains some of the finest agricultural land in the world. The Hudson Bay Lowland borders the west side of Hudson Bay.

The Cordilleran Region comprises the mountainous country bordering the Pacific Ocean. It has an average width of 400 miles and an area of 600,000 sq. miles, and is made up of three zones. On the east is the Rocky Mountain Range having a maximum width of 100 miles and many peaks with elevations of from 10,000 to 12,000 feet. On the west the Coast Range, varying in width from 50 to 100 miles, rises abruptly from the coast to peaks of from 7,000 to 10,000 feet. Between the two is a belt of upland and mountainous country. The highest peak in the Cordillera is Mount Logan in the St. Elias Mountains of Yukon which rises 19,850 feet above sea level.

A fifth region, about which little is known, comprises the islands of the Arctic Archipelago lying north of the Canadian Shield. It has an area of over 500,000 sq. miles.

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*A new highway makes a spectacular loop at Anarchist Mountain, Okanagan Valley, B.C.*





*Newly broken land, Prairie River, Sask. Agriculture on the prairies is extending still farther northward, but homesteading is now provincially controlled and assisted, ensuring successful farm living in communities that can be readily provided with basic public services.*

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## • Lands Resources

Of the total land area of 3,610,097 sq. miles, 552,725 sq. miles are estimated as suitable for cultivation and of this area a little less than half is at present occupied. Most of the unoccupied land considered suitable for agriculture is now under forest. Altogether, 1,320,321 sq. miles (exclusive of Labrador) are under forest and the remainder, which is classified as waste and other land, includes open muskeg, rock, road allowances, urban land, etc.

About 10 p.c. of the total land area of Canada has been alienated from the Crown and is now in private hands, 42 p.c. is under federal administration and the remainder is under provincial administration. The high percentage of federal land is accounted for by the fact that the Yukon and Northwest Territories, which comprise 40 p.c. of the land surface of the country, are under the jurisdiction of the Federal Government. Other federal lands include national parks and historic sites, forest experiment stations, experimental farms, Indian reserves, ordnance lands, etc. All unalienated lands within the provincial boundaries are administered by the provincial governments.

**National Parks.**—The National Parks are maintained by the Federal Government. Differing widely in character and purpose, they include scenic



and recreational parks, wild animal parks set aside primarily for the protection and propagation of species once in danger of extinction, and national historic parks. In addition about 400 sites of national historic importance have been marked.

The Parks are developed and maintained in such a manner that they will not be despoiled or exhausted by use but will continue to provide inspiration, education and healthful recreation for present and future generations. By progressive stages they have been made more easily accessible and their facilities for recreation and accommodation have been vastly extended.

In 1952 nearly 2,612,000 persons visited the Parks approximately 20 p.c. of whom came from the United States and countries abroad. There are 28 separate units with a total area of about 29,000 sq. miles.

**Locations and Areas of National Parks**

| Park                        | Location                                                                                                | Area             |
|-----------------------------|---------------------------------------------------------------------------------------------------------|------------------|
| <b>Scenic</b>               |                                                                                                         | sq. miles        |
| Jasper.....                 | Western Alberta, on east slope of Rockies..                                                             | 4,200·0          |
| Banff.....                  | Western Alberta, on east slope of Rockies..                                                             | 2,564·0          |
| Prince Albert.....          | Central Saskatchewan, north of Prince Albert                                                            | 1,496·0          |
| Riding Mountain.....        | Southwestern Manitoba, west of Lake Winnipeg.....                                                       | 1,148·0          |
| Kootenay.....               | Southeastern British Columbia, on west slope of Rockies.....                                            | 543·0            |
| Glacier.....                | Southeastern British Columbia, on summit of Selkirk Range.....                                          | 521·0            |
| Yoho.....                   | Eastern British Columbia, on west slope of Rockies.....                                                 | 507·0            |
| Cape Breton Highlands.....  | Northern part of Cape Breton Island, Nova Scotia.....                                                   | 390·0            |
| Waterton Lakes.....         | Southern Alberta, adjoining Glacier Park in Montana, U.S.A.....                                         | 204·0            |
| Mount Revelstoke.....       | Southeastern British Columbia, on west slope of Selkirks.....                                           | 100·0            |
| Fundy.....                  | On Bay of Fundy between Moncton and Saint John in New Brunswick.....                                    | 80·0             |
| Prince Edward Island.....   | North shore of Prince Edward Island.....                                                                | 7·0              |
| Point Pelee.....            | On Lake Erie, southern Ontario.....                                                                     | 6·0              |
| Georgian Bay Islands.....   | In Georgian Bay, north of Midland, Ontario                                                              | 5·4              |
| St. Lawrence Islands.....   | In the St. Lawrence River between Morrisburg and Kingston, Ontario.....                                 | 189·4<br>(acres) |
| <b>Wild Animal</b>          |                                                                                                         |                  |
| Wood Buffalo.....           | Partly in Alberta and partly in the North-west Territories, between the Athabaska and Slave Rivers..... | 17,300·0         |
| Elk Island.....             | Central Alberta, near Edmonton.....                                                                     | 75·0             |
| <b>Historic</b>             |                                                                                                         | acres            |
| Fortress of Louisbourg..... | Cape Breton Island, Nova Scotia, 25 miles from Sydney.....                                              | 340·0            |
| Fort Lennox.....            | Ile-aux-Noix, Quebec, near St. Johns.....                                                               | 210·0            |
| Fort Beauséjour.....        | New Brunswick, near Sackville.....                                                                      | 81·0             |
| Fort Prince of Wales.....   | Northern Manitoba, near Churchill.....                                                                  | 50·0             |
| Fort Battleford.....        | Four miles south of North Battleford, Saskatchewan.....                                                 | 36·7             |
| Fort Anne.....              | Nova Scotia at Annapolis Royal.....                                                                     | 31·0             |
| Port Royal.....             | Lower Granville, Nova Scotia, eight miles from Annapolis Royal.....                                     | 17·0             |
| Lower Fort Garry.....       | Twenty miles north of Winnipeg, Manitoba.                                                               | 13·0             |
| Fort Wellington.....        | Prescott, Ontario.....                                                                                  | 8·5              |
| Fort Malden.....            | Amherstburg, Ontario.....                                                                               | 5·0              |
| Fort Chambly.....           | Chambly, Quebec.....                                                                                    | 2·5              |



**Provincial Parks.**—Six of the provinces have established Provincial Parks. While in many cases they are undeveloped areas set aside in their natural state, some of the larger parks, especially in British Columbia, Quebec and Ontario, are highly developed and well served with hotels and other tourist accommodation and have organized recreational facilities. The total areas of provincial park land in the different provinces are as follows: British Columbia, 14,081 sq. miles; Quebec, 12,000 sq. miles; Ontario, 5,212 sq. miles; Saskatchewan, 1,685 sq. miles; Newfoundland, 42 sq. miles; and Alberta, 14 sq. miles. The most important in point of size (all over 1,000 sq. miles in area) are:—

|                     |                           |
|---------------------|---------------------------|
| Tweedsmuir, B.C.    | Laurentides, Que.         |
| Wells Gray, B.C.    | La Vérendrye, Que.        |
| Hamber, B.C.        | Chibougamau Fish and Game |
| Lac La Ronge, Sask. | Reserve, Que.             |
| Algonquin, Ont.     | Trembling Mountain, Que.  |
| Quetico, Ont.       | Lac Kipawa Fish and Game  |
|                     | Reserve, Que.             |

**National Capital Plan.**—A Master Plan to guide the long-range development of Ottawa and the surrounding district and thereby to create a Capital in keeping with Canada's achievements and status as a nation, was completed in 1948 and tabled in the House of Commons in 1951. The Federal District Commission, the agency responsible for the carrying out of the Plan, has reported considerable progress. The location and architecture of a number of government buildings and developments either now under construction or projected have been approved as being in accordance with the Plan. The Mackenzie King Bridge in Confederation Park is all but completed and a good deal of work has been done on the installation of new railway facilities precedent to the removal of cross-town tracks.

Gatineau Park, a 32,000-acre area in the Gatineau Hills just north of Ottawa, set aside as a recreational park and game sanctuary, is administered by the Federal District Commission and is part of the Capital Plan. It is an area of wooded hills and vales, of lakes and streams, in which trails, picnic spots and camping sites are available for summer enjoyment. In winter it is the ski centre of the Ottawa district.

## • *The Climate*

The climate of Canada is dominated by the general movement of the atmosphere from west and northwest. During the winter the cold airmasses moving eastward and southward from the polar regions are modified by the time they reach the central and eastern provinces. In winter, air moving up from the Gulf of Mexico affects the climate of southeastern Canada, while in summer air from the same source furnishes rainfall to the prairies. Airmasses from the north Pacific Ocean lose much of their water content while passing over the mountains and, moving eastward, produce mild to hot weather according to season.

Vancouver Island and the coast of the mainland of British Columbia enjoy the mildest winters to be found anywhere in Canada, with summers long and moderately warm. Autumn and winter are the wet seasons in this area, while temperatures in the interior of the Province are more extreme than those along the coast.



*Lac Philippe, one of the beauty spots of Gatineau Park, just north of Ottawa.*

The severity of the winters varies greatly in the Prairie Provinces from year to year. The 'chinook', that spectacular phenomenon of sudden change from bitter cold to comparative warmth, is one of the striking features of winter weather in the western prairies but is most pronounced in southern Alberta. In summer, daytime temperatures are high but the nights are cool. While rainfall is light, most of it occurs during the growing season. Only a limited portion of the southern prairies has an average frost-free period of 100 or more days.

Throughout northwestern Ontario the winters are cold and, though the summers are moderately warm, the danger of frost at night is always present. The southern Ontario region is traversed alternately by warm and cold air-masses, changing on the average about every three days with precipitation

occurring at the margins of the airmasses. Precipitation is distributed fairly evenly throughout the year. Southwestern Quebec enjoys a similar climate except that the moderating influence of the Great Lakes is absent. Winters are colder, summers slightly warmer and the frost-free period shorter. Northward into Quebec the temperatures are lower in both summer and winter. Precipitation is ample throughout the whole region.

In New Brunswick, Nova Scotia and Prince Edward Island the summers are warm with maximum temperatures rising to 90° or 95° F. at times. Snowfall is heaviest in northern New Brunswick, while in Nova Scotia the heaviest precipitation occurs along the Atlantic Coast and is usually partly rain even in winter. The maximum incidence of fog is from June to August. The winters are cold in the interior of Newfoundland but are more moderate along the coast. Spring is late, summers are short and fog frequent. Winter temperatures are bitterly cold throughout all of northern Canada. Summers in Yukon and in the District of Mackenzie are much warmer than those experienced in the eastern Arctic. Precipitation is light throughout the Far North.

### Temperature and Precipitation Data for 35 Representative Localities in Canada

| Locality                       | Height<br>Above<br>Sea<br><br>ft. | Length<br>of<br>Record<br><br>yrs. | Temperatures<br>(Fahrenheit) |      | Killing Frost<br>Average Dates |                    | Precipitation<br>(inches) |
|--------------------------------|-----------------------------------|------------------------------------|------------------------------|------|--------------------------------|--------------------|---------------------------|
|                                |                                   |                                    | Jan.                         | July | Last in<br>Spring              | First in<br>Autumn | Annual<br>Total           |
| Gander, Nfld. ....             | 482                               | 14                                 | 19.0                         | 62.1 | June 1                         | Oct. 3             | 39.51                     |
| St. John's, Nfld. ...          | 296                               | 67                                 | 23.6                         | 59.3 | June 2                         | Oct. 10            | 54.06                     |
| Charlottetown,<br>P.E.I. ....  | 186                               | 30                                 | 18.8                         | 66.6 | May 16                         | Oct. 14            | 39.22                     |
| Annapolis Royal,<br>N.S. ....  | 10                                | 30                                 | 24.4                         | 65.3 | May 20                         | Oct. 6             | 41.39                     |
| Halifax, N.S. ....             | 83                                | 30                                 | 24.4                         | 65.0 | May 13                         | Oct. 12            | 54.25                     |
| Sydney, N.S. ....              | 48                                | 30                                 | 22.7                         | 65.0 | May 29                         | Oct. 13            | 50.72                     |
| Chatham, N.B. ....             | 98                                | 30                                 | 12.6                         | 66.4 | May 21                         | Sept. 28           | 36.58                     |
| Fredericton, N.B. ...          | 164                               | 30                                 | 14.2                         | 66.0 | May 20                         | Sept. 26           | 42.30                     |
| Saint John, N.B. ...           | 119                               | 30                                 | 19.7                         | 61.8 | May 4                          | Oct. 16            | 47.39                     |
| Arvida, Que. ....              | 335                               | 20                                 | 4.2                          | 65.2 | May 20                         | Sept. 19           | 38.77                     |
| Fort McKenzie, Que.            | 250                               | 12                                 | -12.8                        | 54.0 | July 9                         | July 26            | 20.67                     |
| Lennoxville, Que. ...          | 498                               | 30                                 | 13.2                         | 66.6 | May 31                         | Sept. 10           | 40.06                     |
| Montreal, Que. ....            | 187                               | 30                                 | 15.5                         | 70.4 | Apr. 28                        | Oct. 17            | 41.80                     |
| Kapuskasing, Ont. ...          | 715                               | 30                                 | -1.2                         | 62.8 | June 14                        | Sept. 5            | 28.00                     |
| Ottawa, Ont. ....              | 260                               | 30                                 | 12.0                         | 68.6 | May 11                         | Sept. 29           | 34.83                     |
| Port Arthur, Ont. ...          | 644                               | 30                                 | 8.5                          | 63.4 | May 26                         | Sept. 20           | 27.62                     |
| St. Catharines, Ont.           | 347                               | 30                                 | 26.0                         | 71.5 | May 5                          | Oct. 21            | 27.41                     |
| Toronto, Ont. ....             | 379                               | 30                                 | 24.7                         | 70.7 | May 3                          | Oct. 15            | 30.93                     |
| Churchill, Man. ....           | 44                                | 24-42                              | -17.8                        | 53.8 | June 28                        | Aug. 30            | 14.98                     |
| The Pas, Man. ....             | 890                               | 29                                 | -6.2                         | 64.9 | May 30                         | Sept. 9            | 20.27                     |
| Winnipeg, Man. ....            | 770                               | 68                                 | -3.0                         | 67.0 | May 27                         | Sept. 15           | 20.51                     |
| Prince Albert, Sask. ...       | 1,414                             | 30                                 | -1.3                         | 65.3 | May 30                         | Sept. 10           | 15.65                     |
| Regina, Sask. ....             | 1,880                             | 30                                 | 1.0                          | 65.8 | June 5                         | Sept. 6            | 14.68                     |
| Beaverlodge, Alta. ...         | 2,500                             | 30                                 | 9.9                          | 60.2 | May 30                         | Sept. 1            | 17.29                     |
| Calgary, Alta. ....            | 3,428                             | 30                                 | 15.8                         | 62.4 | June 3                         | Sept. 3            | 17.48                     |
| Edmonton, Alta. ....           | 2,158                             | 61                                 | 6.4                          | 61.7 | May 29                         | Sept. 6            | 17.72                     |
| Medicine Hat, Alta.            | 2,144                             | 30                                 | 13.7                         | 70.2 | May 15                         | Sept. 18           | 13.55                     |
| Cranbrook, B.C. ....           | 3,014                             | 30                                 | 15.0                         | 64.4 | June 10                        | Aug. 27            | 14.23                     |
| Nelson, B.C. ....              | 2,035                             | 30                                 | 24.4                         | 67.2 | May 10                         | Oct. 2             | 28.52                     |
| Penticton, B.C. ....           | 1,200                             | 30                                 | 26.7                         | 68.8 | May 7                          | Oct. 3             | 11.51                     |
| Prince George, B.C. ...        | 1,870                             | 30                                 | 14.6                         | 59.6 | June 17                        | Aug. 24            | 22.17                     |
| Victoria, B.C. ....            | 228                               | 30                                 | 39.2                         | 60.0 | Feb. 28                        | Dec. 7             | 26.18                     |
| Dawson, Y.T. ....              | 1,062                             | 30                                 | -16.0                        | 59.8 | June 4                         | Aug. 21            | 13.99                     |
| Coppermine, N.W.T.             | 9                                 | 19                                 | -19.0                        | 49.0 | June 28                        | Aug. 18            | 10.88                     |
| Fort Good Hope,<br>N.W.T. .... | 214                               | 30                                 | -21.0                        | 59.8 | June 14                        | Aug. 6             | 12.18                     |



## Arctic Weather Stations

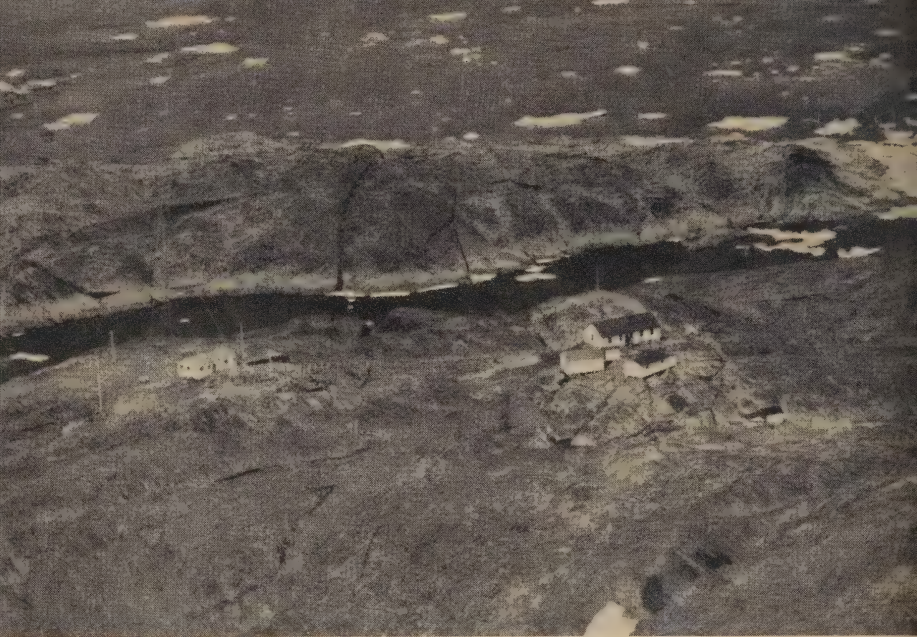
The important men of the Arctic are the meteorologists and their associates who man the outposts within a few hundred miles of the North Pole. Almost all other activities in this part of the world are designed to support the meteorological program or are dependent upon the weather men. The Royal Canadian Air Force brings in the men, their food, their equipment, even their houses and working buildings. Radio operators are on duty to transmit their information south, where it is used to predict the weather in every part of North America and, indeed, in Europe and the Eastern Hemisphere. Scientists who go to the Arctic to learn about Arctic life, the characteristics of the frozen ground, the shape of the earth or the nature of the aurora borealis are all dependent on the weather stations for their operations.

Six years ago there was little activity of any kind in the Canadian Archipelago north of Lancaster Sound. Little was known about the life there and even less about those scientific problems to which the Arctic yields so many answers. Then, in 1947, Canada and the United States worked out a joint program of Arctic weather stations—a five-year program during which period five stations were established for the joint use of both countries.

It was on Apr. 8, 1947, hampered by a stiff breeze with the air temperature at 40° below zero, that the first station personnel arrived by aircraft on Slidre Fiord in Eureka Sound on Northern Ellesmere Island and unloaded their temporary shelter, radio and weather equipment and emergency supplies of food and fuel. The erection of the temporary shelter had to be interrupted several times to drive off large white wolves that wandered boldly into the camp area.

In July of the same year, Arctic-bound ships sailed from Boston loaded with supplies for the establishment of a central weather station at Winter Harbour on Melville Island and for two smaller stations to be located on the islands which fringe the Arctic Ocean. The expedition also planned to resupply the weather station at Eureka. The waters of Davis Strait, Baffin





*The vast areas of the northern Arctic Archipelago are beginning to yield their secrets through the efforts of the scientist and the meteorologist. All activities in the region are highly dependent on the isolated weather stations.*

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Bay and Lancaster Sound were almost completely ice-free as the ships headed north, but heavy close pack-ice blocked their course from Barrow Strait to Melville Island. Twice the ice-breaker drove westward into Melville Sound through the heavy ice, searching for a lead or a path of lighter ice. No lead was found and on the second reconnaissance a heavy piece of ice twenty feet below the surface struck one propeller and smashed it. As the ice-breaker was crippled, the plan to reach Winter Harbour was abandoned and an alternate site was found on Resolute Bay, Cornwallis Island, which appeared most suitable from the point of view of good exposure for weather observations, availability of fresh water supply, and airstrip possibilities.

The unloading of the ships began on the last day of August. Cloudy weather, low temperatures, snowflurries and a light breeze made working conditions difficult and uncomfortable, but in two weeks, working day and night, the weather men, assisted by work parties from the ships, completed the unloading, erected the buildings and installed the essential facilities. Two years later, the RCAF took over an airstrip near the station and now Resolute is the focal point for all activities in the Canadian Arctic.

In April 1948, two stations were established at Mould Bay on Prince Patrick Island and Deer Bay on Isachsen Peninsula on Ellef Ringnes Island, and, during the summer, reconnaissance for a site on the north coast of Ellesmere Island was carried out by ice-breaker. The station was named Alert after one of the ships of the Nares expedition of 1875 which surveyed much of the coastline in this area. The final phase of the establishment of this station

was undertaken in the spring of 1950. The first flight arrived on the site on Easter Sunday to set up a weather station near the northernmost point of land in Canada, less than 500 miles from the North Pole.

The scientific work at the joint Arctic weather stations includes a full program of surface and upper-air meteorological observations. Every three hours, complete surface observations are made of atmospheric pressure, air temperature, humidity, visibility, wind speed and direction, cloud types and amount, and the general state of the weather. Records are also kept of precipitation and extremes of temperature that have occurred since the last observing schedule. Radiosondes are released twice daily to determine the temperature, pressure and relative humidity at various heights in the upper atmosphere. Four times daily, at the joint Arctic stations, wind speed and direction at various upper levels are also observed by means of pilot balloons or rawinsondes (radio direction-finding equipment). Immediately after the observations are taken, the weather information is radioed to Edmonton, Alta., and distributed by teletype to the main forecast offices where it is used in the preparation of aviation and public weather forecasts. A log is kept of all weather observations and these reports are in turn used for statistical studies of the climate of the Arctic.

In addition, many special projects are carried on, including measurements of the rate of accretion of sea ice, determination of temperature gradients in sea ice, observations of the temperatures in soil and permafrost, tidal observations, and observations of snow characteristics.

The following statement gives the values in degrees Fahrenheit of monthly and annual averages of daily mean temperature for the joint Arctic stations.

| <u>Month</u>        | <u>Alert</u> | <u>Eureka</u> | <u>Isachsen</u> | <u>Mould Bay</u> | <u>Resolute</u> |
|---------------------|--------------|---------------|-----------------|------------------|-----------------|
| January.....        | -30          | -38           | -37             | -32              | -30             |
| February.....       | -26          | -39           | -33             | -31              | -34             |
| March.....          | -26          | -30           | -26             | -21              | -23             |
| April.....          | -12          | -21           | -20             | -11              | -13             |
| May.....            | 16           | 13            | 10              | 12               | 13              |
| June.....           | 32           | 38            | 30              | 30               | 33              |
| July.....           | 37           | 42            | 38              | 38               | 40              |
| August.....         | 32           | 38            | 33              | 34               | 38              |
| September.....      | 17           | 19            | 16              | 19               | 23              |
| October.....        | -6           | -6            | -5              | -2               | 6               |
| November.....       | -16          | -21           | -22             | -16              | -8              |
| December.....       | -28          | -36           | -31             | -26              | -19             |
| Annual Average..... | - 1          | - 4           | - 4             | - 1              | 2               |

These stations were established as a joint effort of Canada and the United States and so they remain in operation. Canada provides half the staff; the officer in charge of each station is a Canadian; and the buildings are provided by Canada. The United States provides the remainder of the staff and most of the scientific equipment. The airlift is the main link between civilization and these remote stations. Each spring and each autumn, the RCAF flies its North Stars from Montreal through Churchill and Resolute to Mould Bay and Isachsen; at about the same time aircraft of the USAF fly from Thule in northern Greenland to Alert and Eureka. Each summer, ships of the United States Navy and Coast Guard make their way to Resolute and farther north if ice conditions are favourable. However the airlifts are the real life-line of the stations.

The whole program is an important exercise in mutual co-operation.





# The People

## • Population

THE population of Canada at the beginning of 1953 had reached over 14,500,000.

According to the Census of June 1, 1951, when a total of 14,009,429 was recorded, there were 2,500,000 more people within the borders of Canada than there were a decade before. This increase included over 361,000 people added through Newfoundland's entry into Confederation in 1949. In the ten-year period there was an increase of 3 p.c. in the population of Prince Edward Island, 11 p.c. in Nova Scotia and 13 p.c. in New Brunswick. Quebec and Ontario each increased by 21 p.c. and registered the largest numerical gains among the provinces of 724,000 and 810,000, respectively. Striking differences occurred in the rates of growth of the three Prairie Provinces with Manitoba gaining 6 p.c., Saskatchewan losing 7 p.c., and Alberta increasing 18 p.c. British Columbia showed the greatest rate of growth with a gain of 42 p.c. and the third highest numerical gain amounting to 347,349.

### Population of Canada, by Provinces, Census Years 1891-1951

NOTE.—The figures for certain censuses are not altogether comparable but the qualifications are for the most part technical and are given in detail in the Census reports.

| Province or Territory | 1891             | 1901             | 1911             | 1921             | 1931              | 1941              | 1951              |
|-----------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|
|                       | No.              | No.              | No.              | No.              | No.               | No.               | No.               |
| Nfld.....             |                  |                  |                  |                  |                   |                   | 361,416           |
| P.E.I.....            | 109,078          | 103,259          | 93,728           | 88,615           | 88,038            | 95,047            | 98,429            |
| N.S.....              | 450,396          | 459,574          | 492,338          | 523,837          | 512,846           | 577,962           | 642,584           |
| N.B.....              | 321,263          | 331,120          | 351,889          | 387,876          | 408,219           | 457,401           | 515,697           |
| Que.....              | 1,488,535        | 1,648,898        | 2,005,776        | 2,360,510        | 2,874,662         | 3,331,882         | 4,055,681         |
| Ont.....              | 2,114,321        | 2,182,947        | 2,527,292        | 2,933,662        | 3,431,683         | 3,787,655         | 4,597,542         |
| Man.....              | 152,506          | 255,211          | 461,394          | 610,118          | 700,139           | 729,744           | 776,541           |
| Sask.....             | ...              | 91,279           | 492,432          | 757,510          | 921,785           | 895,992           | 831,728           |
| Alta.....             | ...              | 73,022           | 374,295          | 588,454          | 731,605           | 796,169           | 939,501           |
| B.C.....              | 98,173           | 178,657          | 392,480          | 524,582          | 694,263           | 817,861           | 1,165,210         |
| Yukon.....            | ...              | 27,219           | 8,512            | 4,157            | 4,230             | 4,914             | 9,096             |
| N.W.T.....            | 98,967           | 20,129           | 6,507            | 8,143            | 9,316             | 12,028            | 16,004            |
| <b>Canada.....</b>    | <b>4,833,239</b> | <b>5,371,315</b> | <b>7,206,643</b> | <b>8,787,949</b> | <b>10,376,786</b> | <b>11,506,655</b> | <b>14,009,429</b> |

<sup>1</sup> Includes 485 members of the Royal Canadian Navy, who were recorded separately.

The mixed trends in the Prairie Provinces are further illustrated by comparing the 1941 and 1951 population totals with those of the 1946 Census of these three provinces. Manitoba's population showed a slight loss between 1941 and 1946 and then gained 50,000 between 1946 and 1951. In Saskatchewan the net loss in population during the war years was most striking, amounting to 73,000, but the decrease levelled off between 1946 and 1951. The recent trend toward increased mechanization of agriculture, together with fewer and larger farms, resulted in the exodus of thousands of persons from the rural parts of the prairies, some to neighbouring provinces and others to more populated sections of the same province. In many cases farms are

now worked by operators who commute from the towns and villages to which they have moved. Alberta's large gain in population between 1941 and 1951 was due mainly to the important oil discoveries in the central part of the Province and to the increasing industrialization of its cities and towns causing, for example, the population of the city of Edmonton to increase by 70 p.c. during those years.

While most of Canada's larger cities showed sizeable increases in population during the 1941-51 period, the phenomenal rate of growth in the suburban fringe areas was more impressive. Toronto was the most notable example—the city proper increased by only a few thousand persons, but the metropolitan area rose in population by over 208,000. A like development took place in the cities of Montreal, Vancouver, Winnipeg, Hamilton, Ottawa, Edmonton and Quebec. Remarkable, too, was the growth of some of the smaller industrialized cities and towns, such as Arvida and Noranda in Quebec and Sarnia and Peterborough in Ontario.

### *Population of Census Metropolitan Areas, 1941 and 1951*

| Area                | 1941      | 1951      | Area                  | 1941                | 1951    |
|---------------------|-----------|-----------|-----------------------|---------------------|---------|
|                     | No.       | No.       |                       | No.                 | No.     |
| Montreal, Que.....  | 1,145,282 | 1,395,400 | Windsor, Ont.....     | 123,973             | 157,672 |
| Toronto, Ont.....   | 909,928   | 1,117,470 | Calgary, Alta.....    | 93,021              | 139,105 |
| Vancouver, B.C..... | 377,447   | 530,728   | Halifax, N.S.....     | 98,636              | 133,931 |
| Winnipeg, Man.....  | 299,937   | 354,069   | London, Ont.....      | 91,024              | 121,516 |
| Ottawa, Ont.....    | 226,290   | 281,908   | Victoria, B.C.....    | 75,560              | 104,303 |
| Quebec, Que.....    | 224,756   | 274,827   | Saint John, N.B.....  | 70,927              | 78,337  |
| Hamilton, Ont.....  | 197,732   | 259,685   | St. John's, Nfld..... | 59,474 <sup>1</sup> | 67,749  |
| Edmonton, Alta..... | 97,842    | 173,075   |                       |                     |         |

<sup>1</sup> Census of Newfoundland, 1945; figure for 1941 not available.

### *Populations of Incorporated Urban Centres with 10,000 or More Inhabitants, 1941 and 1951*

| Urban Centre                  | 1941   | 1951    | Urban Centre           | 1941    | 1951      |
|-------------------------------|--------|---------|------------------------|---------|-----------|
|                               | No.    | No.     |                        | No.     | No.       |
| Arvida, Que.....              | 4,581  | 11,078  | Granby, Que.....       | 14,197  | 21,989    |
| Barrie, Ont.....              | 9,725  | 12,514  | Grand'Mère, Que.....   | 8,608   | 11,089    |
| Belleville, Ont.....          | 15,710 | 19,519  | Guelph, Ont.....       | 23,273  | 27,386    |
| Brandon, Man.....             | 17,383 | 20,598  | Halifax, N.S.....      | 70,488  | 85,589    |
| Brantford, Ont.....           | 31,948 | 36,727  | Hamilton, Ont.....     | 166,337 | 208,321   |
| Brockville, Ont.....          | 11,342 | 12,301  | Hull, Que.....         | 32,947  | 43,483    |
| Calgary, Alta.....            | 88,904 | 129,060 | Jacques Cartier, Que.. | 1       | 22,450    |
| Cap-de-la-Madeleine, Que..... | 11,961 | 18,667  | Joliette, Que.....     | 12,749  | 16,064    |
| Charlottetown, P.E.I.....     | 14,821 | 15,887  | Jonquière, Que.....    | 13,769  | 21,618    |
| Chatham, Ont.....             | 17,369 | 21,218  | Kingston, Ont.....     | 30,126  | 33,459    |
| Chicoutimi, Que.....          | 16,040 | 23,216  | Kitchener, Ont.....    | 35,657  | 44,867    |
| Cornwall, Ont.....            | 14,117 | 16,899  | Lachine, Que.....      | 20,051  | 27,773    |
| Dartmouth, N.S.....           | 10,847 | 15,037  | Lasalle, Que.....      | 4,651   | 11,633    |
| Drummondville, Que.....       | 10,555 | 14,341  | Leaside, Ont.....      | 6,183   | 16,233    |
| Eastview, Ont.....            | 7,966  | 13,799  | Lethbridge, Alta.....  | 14,612  | 22,947    |
| Edmonton, Alta.....           | 93,817 | 159,631 | Lévis, Que.....        | 11,991  | 13,162    |
| Edmundston, N.B.....          | 7,096  | 10,753  | London, Ont.....       | 78,134  | 95,343    |
| Forest Hill, Ont.....         | 11,757 | 15,305  | Longueuil, Que.....    | 7,087   | 11,103    |
| Fort William, Ont.....        | 30,585 | 34,947  | Magog, Que.....        | 9,034   | 12,423    |
| Fredericton, N.B.....         | 10,062 | 16,018  | Medicine Hat, Alta.... | 10,571  | 16,364    |
| Galt, Ont.....                | 15,346 | 19,207  | Mimico, Ont.....       | 8,070   | 11,342    |
| Glace Bay, N.S.....           | 25,147 | 25,586  | Moncton, N.B.....      | 22,763  | 27,334    |
|                               |        |         | Montreal, Que.....     | 903,007 | 1,021,520 |

<sup>1</sup> Not incorporated in 1941.



**Populations of Incorporated Urban Centres with 10,000 or More  
Inhabitants, 1941 and 1951—concluded**

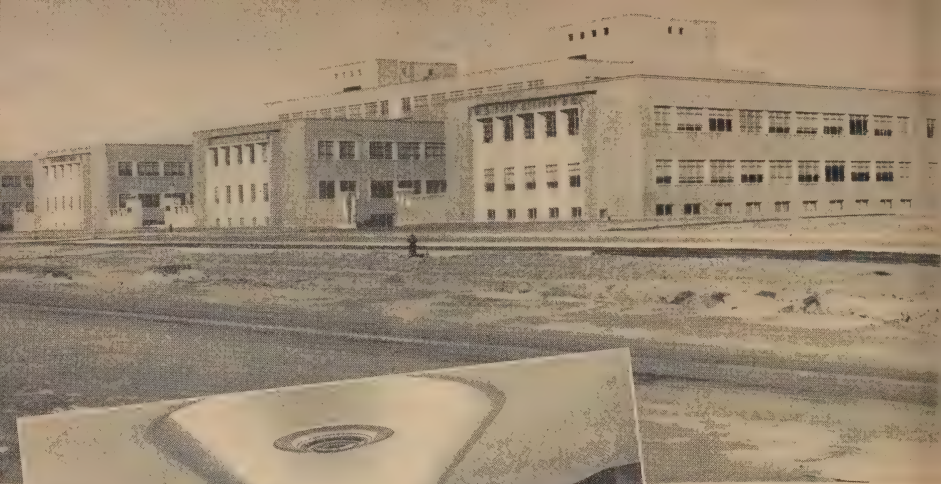
| Urban Centre             | 1941     | 1951     | Urban Centre                            | 1941     | 1951     |
|--------------------------|----------|----------|-----------------------------------------|----------|----------|
|                          | No.      | No.      |                                         | No.      | No.      |
| Montreal N., Que.....    | 6, 152   | 14, 081  | St. Thomas, Ont.....                    | 17, 132  | 18, 173  |
| Moose Jaw, Sask.....     | 20, 753  | 24, 355  | Saint John, N.B.....                    | 51, 741  | 50, 779  |
| Mount Royal, Que.....    | 4, 888   | 11, 352  | Sarnia, Ont.....                        | 18, 734  | 34, 697  |
| New Toronto, Ont.....    | 9, 504   | 11, 194  | Saskatoon, Sask.....                    | 43, 027  | 53, 268  |
| New Waterford, N.S.....  | 9, 302   | 10, 423  | Sault Ste. Marie, Ont..                 | 25, 794  | 32, 452  |
| New Westminster, B.C.... | 21, 967  | 28, 639  | Shawinigan Falls, Que..                 | 20, 325  | 26, 903  |
| Niagara Falls, Ont.....  | 20, 589  | 22, 874  | Sherbrooke, Que.....                    | 35, 965  | 50, 543  |
| North Bay, Ont.....      | 15, 599  | 17, 944  | Sillery, Que.....                       | 1        | 10, 376  |
| North Vancouver, B.C.... | 8, 914   | 15, 687  | Sorel, Que.....                         | 12, 251  | 14, 961  |
| Orillia, Ont.....        | 9, 798   | 12, 110  | Stratford, Ont.....                     | 17, 038  | 18, 785  |
| Oshawa, Ont.....         | 26, 813  | 41, 545  | Sudbury, Ont.....                       | 32, 203  | 42, 410  |
| Ottawa, Ont.....         | 154, 951 | 202, 045 | Sydney, N.S.....                        | 28, 305  | 31, 317  |
| Outremont, Que.....      | 30, 751  | 30, 057  | Thetford Mines, Que..                   | 12, 716  | 15, 095  |
| Owen Sound, Ont.....     | 14, 002  | 16, 423  | Three Rivers, Que.....                  | 42, 007  | 46, 074  |
| Pembroke, Ont.....       | 11, 159  | 12, 704  | Timmins, Ont.....                       | 28, 790  | 27, 743  |
| Penticton, B.C.....      | 1        | 10, 548  | Toronto, Ont.....                       | 667, 457 | 675, 754 |
| Peterborough, Ont.....   | 25, 350  | 38, 272  | Trail, B.C.....                         | 9, 392   | 11, 430  |
| Port Arthur, Ont.....    | 24, 426  | 31, 161  | Trenton, Ont.....                       | 8, 323   | 10, 085  |
| Prince Albert, Sask..... | 12, 508  | 17, 149  | Truro, N.S.....                         | 10, 272  | 10, 756  |
| Quebec, Que.....         | 150, 757 | 164, 016 | Valleyfield (Salaberry<br>de), Que..... | 17, 052  | 22, 414  |
| Regina, Sask.....        | 58, 245  | 71, 319  | Vancouver, B.C.....                     | 275, 353 | 344, 833 |
| Rimouski, Que.....       | 7, 009   | 11, 565  | Verdun, Que.....                        | 67, 349  | 77, 391  |
| Rouyn, Que.....          | 8, 808   | 14, 633  | Victoria, B.C.....                      | 44, 068  | 51, 331  |
| St. Boniface, Man.....   | 18, 157  | 26, 342  | Victoriaville, Que.....                 | 8, 516   | 13, 124  |
| St. Catharines, Ont..... | 30, 275  | 37, 984  | Waterloo, Ont.....                      | 9, 025   | 11, 991  |
| St. Hyacinthe, Que.....  | 17, 798  | 20, 236  | Welland, Ont.....                       | 12, 500  | 15, 382  |
| St. Jean, Que.....       | 13, 646  | 19, 305  | Westmount, Que.....                     | 26, 047  | 25, 222  |
| St. Jerome, Que.....     | 11, 329  | 17, 685  | Windsor, Ont.....                       | 105, 311 | 120, 049 |
| St. John's, Nfld.....    |          | 52, 873  | Winnipeg, Man.....                      | 221, 960 | 235, 710 |
| St. Laurent, Que.....    | 6, 242   | 20, 426  | Woodstock, Ont.....                     | 12, 461  | 15, 544  |
| St. Michel, Que.....     | 2, 956   | 10, 539  |                                         |          |          |

<sup>1</sup> Not incorporated in 1941.

**Rural and Urban.**—Census figures show that on June 1, 1951, 38 p.c. of Canada's population was located in rural localities and about 52 p.c. of those rural dwellers lived on farms. Thus the farm population constituted about 20 p.c. of the nation's total. The recent trend towards urbanization in Canada is no exception to that noted in many other countries. In the 1941-51 decade, the urban population, exclusive of Newfoundland, increased 30 p.c. and the rural population 3 p.c.

The town of Deep River, Ont., built in a pine forest for atomic power plant workers and their families, has been designed for comfortable, well-ordered living.





▲  
The new Dominion Bureau of Statistics Building at Tunney's Pasture, Ottawa, which was ready for occupancy in mid-summer 1952. Landscaping will be completed in 1953.

◀  
The Conference Room.

### Rural Populations Classified by Farm and Non-Farm and Urban Populations Classified by Size Groups, 1951

| Province or Territory | Rural             |           |           | Urban          |                  |                 |                    |
|-----------------------|-------------------|-----------|-----------|----------------|------------------|-----------------|--------------------|
|                       | Farm <sup>1</sup> | Non-Farm  | Total     | 1,000 to 9,999 | 10,000 to 99,999 | 100,000 or Over | Total <sup>2</sup> |
|                       | No.               | No.       | No.       | No.            | No.              | No.             | No.                |
| Nfld.....             | 15,456            | 191,165   | 206,621   | 100,375        | 52,873           | —               | 154,795            |
| P.E.I.....            | 46,757            | 26,987    | 73,744    | 8,798          | 15,887           | —               | 24,685             |
| N.S.....              | 112,135           | 185,618   | 297,753   | 166,121        | 178,708          | —               | 344,831            |
| N.B.....              | 145,771           | 154,915   | 300,686   | 86,906         | 127,209          | —               | 215,011            |
| Que.....              | 766,910           | 591,453   | 1,358,363 | 750,436        | 752,071          | 1,185,536       | 2,697,318          |
| Ont.....              | 678,043           | 668,400   | 1,346,443 | 714,343        | 1,227,852        | 1,307,751       | 3,251,099          |
| Man.....              | 214,435           | 122,526   | 336,961   | 93,965         | 109,036          | 235,710         | 439,580            |
| Sask.....             | 398,279           | 180,979   | 579,258   | 86,379         | 166,091          | —               | 252,470            |
| Alta.....             | 339,955           | 149,871   | 489,826   | 120,700        | 39,311           | 288,691         | 449,675            |
| B.C.....              | 109,919           | 261,820   | 371,739   | 157,333        | 289,947          | 344,833         | 793,471            |
| Yukon.....            | 44                | 6,458     | 6,502     | 2,594          | —                | —               | 2,594              |
| N.W.T.....            | 28                | 13,252    | 13,280    | 2,724          | —                | —               | 2,724              |
| Canada.....           | 2,827,732         | 2,553,444 | 5,381,176 | 2,290,674      | 2,958,985        | 3,362,521       | 8,628,253          |

<sup>1</sup> Exclusive of 84,264 persons living on farms in localities classed as "urban".

<sup>2</sup> In-

cludes a few metropolitan area parts with less than 1,000 population.



**Age and Sex.**—The high birth rates of the 1941-51 decade were reflected in the 1951 population distributions by age and sex. In 1951 there were 223 persons per 1,000 of total population under 10 years of age, as compared with 182 in 1941 and 213 in 1931. The tendency towards "ageing" of Canada's population was shown by the fact that 114 persons per 1,000 of total population were recorded in the 60 years of age or over group, compared with 102 in 1941 and 84 in 1931. However, should the 1941-51 birth rates continue in the present decade and immigration be maintained at current levels, an eventual arresting of this tendency may well result.

*Males and Females, by Age Groups, 1951*

| Age Group     | Male    | Female  | Total     | Age Group     | Male      | Female    | Total      |
|---------------|---------|---------|-----------|---------------|-----------|-----------|------------|
|               | No.     | No.     | No.       |               | No.       | No.       | No.        |
| 0- 4 years... | 879,063 | 843,046 | 1,722,109 | 50-54 years.  | 340,461   | 322,195   | 662,656    |
| 5- 9 " ...    | 713,873 | 683,952 | 1,397,825 | 55-59 " "     | 292,564   | 278,126   | 570,690    |
| 10-14 " ...   | 575,122 | 555,661 | 1,130,783 | 60-64 " "     | 264,324   | 241,828   | 506,152    |
| 15-19 " ...   | 532,180 | 525,792 | 1,057,972 | 65-69 " "     | 228,076   | 205,421   | 433,497    |
| 20-24 " ...   | 537,535 | 551,106 | 1,088,641 | 70-74 " "     | 160,398   | 154,674   | 315,072    |
| 25-29 " ...   | 552,812 | 578,403 | 1,131,215 | 75-79 " "     | 94,130    | 94,261    | 188,391    |
| 30-34 " ...   | 512,557 | 530,177 | 1,042,734 | 80-84 " "     | 45,963    | 50,828    | 96,791     |
| 35-39 " ...   | 503,571 | 495,562 | 999,133   | 85-89 " "     | 17,539    | 22,060    | 39,599     |
| 40-44 " ...   | 445,800 | 422,767 | 868,567   | 90 or over .. | 5,197     | 7,726     | 12,923     |
| 45-49 " ...   | 387,708 | 356,971 | 744,679   |               |           |           |            |
|               |         |         |           | All Ages.     | 7,088,873 | 6,920,556 | 14,009,429 |

**Birthplace.**—More than 85 p.c. of the nation's total population as of June 1, 1951, was born in Canada, a proportion exceeded only once since the turn of the century—in 1901 the figure was 87 p.c. In 1941, 82 p.c. of the population was Canadian-born. This relative increase in native-born population can be attributed largely to reduced immigration during the war years coupled with the high birth rate in the 1941-51 period. The entry of Newfoundland into Confederation with Canada also had an influence in this direction since nearly 99 p.c. of that Province's total population is native-born. In 1951, not quite 7 p.c. of Canada's population indicated that they were born in the United Kingdom or other British Commonwealth countries while 2 p.c. reported their birthplace as the United States and 6 p.c. as other countries.

Electronic machines operating at super-human speeds enable Canada's Bureau of Statistics to produce an unending stream of up-to-date, dependable figures on practically every aspect of Canadian life.





## Birthplaces of the Population, 1951

| Birthplace                           | Population | Birthplace                                | Population        |
|--------------------------------------|------------|-------------------------------------------|-------------------|
|                                      | No.        |                                           | No.               |
| Canada.....                          | 11,949,518 | Other British Commonwealth..              | 20,567            |
| Newfoundland.....                    | 397,623    | United States.....                        | 282,010           |
| Prince Edward Island.....            | 117,310    | Europe.....                               | 801,618           |
| Nova Scotia.....                     | 660,150    | Germany.....                              | 42,693            |
| New Brunswick.....                   | 549,984    | Italy.....                                | 57,789            |
| Quebec.....                          | 3,881,487  | Poland.....                               | 164,474           |
| Ontario.....                         | 3,645,074  | Russia.....                               | 188,292           |
| Manitoba.....                        | 699,587    | Scandinavian countries <sup>1</sup> ..... | 64,522            |
| Saskatchewan.....                    | 817,404    | Other.....                                | 283,848           |
| Alberta.....                         | 649,594    | Asia.....                                 | 37,145            |
| British Columbia.....                | 514,651    | Other countries.....                      | 6,089             |
| Yukon and Northwest Territories..... | 16,654     |                                           |                   |
| United Kingdom.....                  | 912,482    | <b>Total.....</b>                         | <b>14,009,429</b> |
| England and Wales.....               | 627,551    |                                           |                   |
| Northern Ireland.....                | 56,685     |                                           |                   |
| Scotland.....                        | 226,343    |                                           |                   |
| Lesser Isles.....                    | 1,903      |                                           |                   |

<sup>1</sup> Includes Denmark, Iceland, Norway and Sweden.

**Origin.**—In 1951, British Isles and French origins, traditionally the largest cultural groups in Canada, accounted for more than 78 p.c. of the nation's total population. Compared with 1901, the British Isles group dropped from 57·0 p.c. of the total to 47·9 p.c. while the percentage of persons of French origin was very slightly higher at 30·8 as against 30·7. In the same comparison, the percentage of those with ancestry in continental Europe more than doubled from 8·5 to 18·2 and Asiatics showed a slight increase from 0·4 p.c. of the total to 0·5 p.c.

### Leading Origins, by Provinces, 1951

| Province or Territory | British Isles <sup>1</sup> | French           | German         | Ukrainian      | Scandinavian <sup>2</sup> | Netherlands    | Polish         |
|-----------------------|----------------------------|------------------|----------------|----------------|---------------------------|----------------|----------------|
|                       | No.                        | No.              | No.            | No.            | No.                       | No.            | No.            |
| Nfld.....             | 337,780                    | 9,841            | 368            | 20             | 569                       | 176            | 79             |
| P.E.I.....            | 80,669                     | 15,477           | 317            | 47             | 253                       | 677            | 54             |
| N.S.....              | 482,571                    | 73,760           | 28,751         | 1,235          | 3,193                     | 20,819         | 2,364          |
| N.B.....              | 294,694                    | 197,631          | 2,623          | 129            | 3,367                     | 5,920          | 340            |
| Que.....              | 491,818                    | 3,327,128        | 12,249         | 12,921         | 5,390                     | 3,129          | 16,998         |
| Ont.....              | 3,081,919                  | 477,677          | 222,028        | 93,595         | 37,430                    | 98,373         | 89,825         |
| Man.....              | 362,550                    | 66,020           | 54,251         | 98,753         | 32,921                    | 42,341         | 37,933         |
| Sask.....             | 351,862                    | 51,930           | 135,584        | 78,399         | 62,439                    | 29,818         | 26,034         |
| Alta.....             | 451,709                    | 56,185           | 107,985        | 86,957         | 70,929                    | 29,385         | 29,661         |
| B.C.....              | 766,189                    | 41,919           | 55,307         | 22,613         | 65,612                    | 33,388         | 16,301         |
| Yukon.....            | 4,829                      | 645              | 363            | 170            | 564                       | 155            | 136            |
| N.W.T.....            | 3,095                      | 954              | 169            | 204            | 357                       | 86             | 120            |
| <b>Canada.....</b>    | <b>6,709,685</b>           | <b>4,319,167</b> | <b>619,995</b> | <b>395,043</b> | <b>283,024</b>            | <b>264,267</b> | <b>219,845</b> |

<sup>1</sup> Includes English, Irish, Scottish and Welsh.

<sup>2</sup> Includes Danish, Icelandic, Norwegian and Swedish.

**Official Language.**—Of the two official languages in Canada, the 1951 Census showed that 67 p.c. of the population spoke only English and close to 20 p.c. spoke only French. More than 12 p.c. spoke both English and French, and only 1 p.c. were unable to speak either of these languages. Provincially, more than 98 p.c. of the people of Newfoundland spoke only English while in Quebec 62·5 persons spoke only French and 25·6 were bilingual, the highest

percentage among the provinces in each case. Manitoba recorded the highest percentage (3.1) of persons who were unable to speak either of the official languages.

**Population Speaking One, Both or Neither of the Official Languages, by Provinces, 1951**

| Province or Territory | English Only     | French Only      | English and French | Neither English nor French | Total             |
|-----------------------|------------------|------------------|--------------------|----------------------------|-------------------|
|                       | No.              | No.              | No.                | No.                        | No.               |
| Nfld.                 | 356,377          | 153              | 3,990              | 896                        | 361,416           |
| P.E.I.                | 88,743           | 914              | 8,745              | 27                         | 98,429            |
| N.S.                  | 595,257          | 7,462            | 39,524             | 341                        | 642,584           |
| N.B.                  | 318,560          | 100,712          | 96,095             | 330                        | 515,697           |
| Que.                  | 462,813          | 2,534,242        | 1,038,130          | 20,496                     | 4,055,681         |
| Ont.                  | 4,115,584        | 78,974           | 359,965            | 43,019                     | 4,597,542         |
| Man.                  | 685,914          | 7,869            | 58,441             | 24,317                     | 776,541           |
| Sask.                 | 767,248          | 4,656            | 40,789             | 19,035                     | 831,728           |
| Alta.                 | 868,696          | 5,922            | 40,785             | 24,098                     | 939,501           |
| B.C.                  | 1,112,937        | 727              | 39,433             | 12,113                     | 1,165,210         |
| Yukon.                | 8,337            | 10               | 519                | 230                        | 9,096             |
| N.W.T.                | 6,929            | 171              | 1,031              | 7,873                      | 16,004            |
| <b>Canada</b>         | <b>9,387,395</b> | <b>2,741,812</b> | <b>1,727,447</b>   | <b>152,775</b>             | <b>14,009,429</b> |

**Religious Denominations.**—Religious denominations in Canada are many and diverse. However, in 1951 more than 95 p.c. of the population belonged or adhered to one of the nine numerically largest religious denominations. Roman Catholics, who comprised more than 43 p.c., were in greatest numbers in Quebec and the Atlantic Provinces. In Ontario and the western provinces, the United Church had the largest following, accounting for 28 to 30 p.c. Approximately 45 p.c. of the Anglicans, 56 p.c. of the Presbyterians, 41 p.c. of the Baptists and 30 p.c. of the Lutherans were in Ontario. Four-fifths of those of Jewish religion resided in Ontario and Quebec while over 93 p.c. of all Ukrainian (Greek) Catholics and 85 p.c. of the persons of Greek Orthodox faith lived in Ontario and the Prairie Provinces.

**Leading Religious Denominations, by Provinces, 1951**

| Province or Territory | Roman Catholic   | United Church of Canada | Church of England in Canada | Presbyterian   | Baptist        | Lutheran       | Jewish         |
|-----------------------|------------------|-------------------------|-----------------------------|----------------|----------------|----------------|----------------|
|                       | No.              | No.                     | No.                         | No.            | No.            | No.            | No.            |
| Nfld.                 | 121,544          | 85,571                  | 109,090                     | 1,914          | 249            | 202            | 264            |
| P.E.I.                | 44,802           | 25,969                  | 6,119                       | 13,383         | 5,319          | 43             | 26             |
| N.S.                  | 217,978          | 141,152                 | 117,602                     | 42,422         | 94,103         | 9,743          | 2,201          |
| N.B.                  | 260,742          | 71,879                  | 59,847                      | 13,323         | 90,681         | 1,016          | 1,269          |
| Que.                  | 3,563,951        | 129,219                 | 166,761                     | 50,410         | 12,950         | 9,390          | 82,701         |
| Ont.                  | 1,142,140        | 1,320,366               | 936,002                     | 439,072        | 212,467        | 135,581        | 85,467         |
| Man.                  | 156,283          | 224,554                 | 120,690                     | 34,686         | 13,483         | 48,744         | 19,282         |
| Sask.                 | 199,424          | 247,345                 | 95,476                      | 33,290         | 15,606         | 91,454         | 3,617          |
| Alta.                 | 186,312          | 276,551                 | 122,980                     | 55,004         | 34,720         | 87,364         | 4,626          |
| B.C.                  | 168,016          | 341,914                 | 315,469                     | 97,151         | 39,445         | 60,641         | 5,969          |
| Yukon.                | 1,845            | 1,660                   | 3,420                       | 713            | 440            | 456            | 3              |
| N.W.T.                | 6,459            | 1,091                   | 7,264                       | 379            | 122            | 289            | 11             |
| <b>Canada</b>         | <b>6,069,496</b> | <b>2,867,271</b>        | <b>2,060,720</b>            | <b>781,747</b> | <b>519,585</b> | <b>444,923</b> | <b>204,836</b> |

**Dwellings, Households and Families.**—In 1951 there were roughly 3,400,000 occupied dwellings in Canada and 3,287,000 resident families, compared with approximately 2,600,000 dwellings and 2,500,000 families in

1941. The increases were shared by all provinces. Since dwellings and families increased at a faster rate than population, the average number of persons per household in 1951 was 4.0 compared with 4.3 in 1941 and the average per family 3.7 compared with 3.9.

***Dwellings, Households and Families, and Persons per Household and Family, by Provinces, 1951***

| Province    | Population              | Dwellings          |                       | Families               | Persons per Household <sup>2</sup> | Persons per Family |
|-------------|-------------------------|--------------------|-----------------------|------------------------|------------------------------------|--------------------|
|             |                         | Total <sup>1</sup> | Occupied <sup>2</sup> |                        |                                    |                    |
|             | No.                     | No.                | No.                   | No.                    | No.                                | No.                |
| Nfld.....   | 361,416                 | 78,024             | 70,980                | 74,858                 | 5.0                                | 4.4                |
| P.E.I.....  | 98,429                  | 24,114             | 22,454                | 21,381                 | 4.3                                | 4.0                |
| N.S.....    | 642,584                 | 159,795            | 149,555               | 145,127                | 4.2                                | 3.9                |
| N.B.....    | 515,697                 | 120,639            | 114,007               | 111,639                | 4.4                                | 4.1                |
| Que.....    | 4,055,681               | 898,914            | 858,784               | 856,041                | 4.6                                | 4.2                |
| Ont.....    | 4,597,542               | 1,232,081          | 1,181,126             | 1,162,772              | 3.8                                | 3.4                |
| Man.....    | 776,541                 | 210,565            | 202,398               | 191,268                | 3.7                                | 3.6                |
| Sask.....   | 831,728                 | 237,406            | 221,456               | 196,188                | 3.7                                | 3.7                |
| Alta.....   | 939,501                 | 266,939            | 250,747               | 223,326                | 3.6                                | 3.7                |
| B.C.....    | 1,165,210               | 356,651            | 337,777               | 299,845                | 3.3                                | 3.3                |
| Canada..... | 14,009,429 <sup>3</sup> | 3,585,128          | 3,409,284             | 3,287,384 <sup>3</sup> | 4.0                                | 3.7 <sup>3</sup>   |

<sup>1</sup> Includes institutions, hotels and camps as well as vacant dwellings and dwellings under construction. <sup>2</sup> Excludes institutions, hotels and camps. <sup>3</sup> Includes the Yukon and Northwest Territories.

**Population Estimates for 1952.**—The 1952 estimates result from a population accounting which starts with the 1951 Census, adds births and immigration and deducts deaths and emigration for the 12 months. Provincial estimates take into account interprovincial migration estimated from an annual sample survey. Figures by provinces are as follows: Newfoundland, 374,000; Prince Edward Island, 103,000; Nova Scotia, 653,000; New Brunswick, 526,000; Quebec, 4,174,000; Ontario, 4,766,000; Manitoba, 798,000; Saskatchewan, 843,000; Alberta, 970,000; British Columbia, 1,198,000; Yukon Territory, 9,000; and the Northwest Territories, 16,000; a total of 14,430,000.

**Indians.**—The Indians of Canada are not one race but are divided into a number of widely scattered tribes, speaking different languages and differing in national and cultural background and in economy. According to the 1951 Census, there were 155,874 persons of Indian origin in Canada, distributed by provinces and sex as follows:—

| Province   | Male   | Female | Total  | Province    | Male   | Female | Total   |
|------------|--------|--------|--------|-------------|--------|--------|---------|
| Nfld.....  | 184    | 174    | 358    | Sask.....   | 11,265 | 10,985 | 22,250  |
| P.E.I..... | 136    | 121    | 257    | Alta.....   | 10,743 | 10,420 | 21,163  |
| N.S.....   | 1,379  | 1,338  | 2,717  | B.C.....    | 14,602 | 13,876 | 28,478  |
| N.B.....   | 1,164  | 1,091  | 2,255  | Yukon.....  | 734    | 799    | 1,533   |
| Que.....   | 7,556  | 7,075  | 14,631 | N.W.T.....  | 1,913  | 1,925  | 3,838   |
| Ont.....   | 19,025 | 18,345 | 37,370 |             |        |        |         |
| Man.....   | 10,642 | 10,382 | 21,024 | CANADA..... | 79,343 | 76,531 | 155,874 |

These figures include all persons with a paternal ancestor of Indian race, many of whom have long been assimilated and have lost their identity as Indians. The number of persons considered as Indians under Indian legislation is estimated at about 137,000. These persons are regarded as a separate



and special responsibility of the Government and their administration is under the jurisdiction of the Indian Affairs Branch of the Department of Citizenship and Immigration, with the exception of medical and health services which are provided by the Department of National Health and Welfare. On Sept. 4, 1951, a new Indian Act was brought into force which completely revised the legislation under which Indian affairs are administered. Under the new Act the Indians have more responsibility than formerly in the conducting of their own affairs in the hope that such responsibility will hasten their advancement towards self-reliance. They have a greater measure of self-government and, through their Band Councils, more control over their funds and lands.

Reserves, or lands set aside for the use of Indian Bands, number more than 2,000, varying in size from a few acres to 500 sq. miles. Most of this reserve land is community property but an Indian may be allotted possession of land within a reserve by the Council of the Band.

At Mar. 31, 1952, the Indian Trust Fund amounted to \$21,359,035. The Fund is made up of more than 500 separate accounts belonging to different Bands, derived mainly from the proceeds of land sales and leases, disposition of timber, mineral and oil rights. A Revolving Fund assists in the purchase of farm implements, machinery, live stock, fishing equipment, seed grain, materials used in native handicrafts, and so on.

The Indian of to-day no longer depends primarily on trapping and hunting for a livelihood. While in the northern portions of the provinces and in the Territories beaver and fox trapping may still serve as the yardstick for the Indian economy, increasing numbers of Indians are employed in logging and lumber camps and mills or in road-building and government construction work in which they have become efficient operators of bulldozers, graders and tractors. In the more southerly regions the Indians' main source of livelihood is agriculture—grain-growing, cattle raising, haying and vegetable gardening—although they often supplement their income with part-time industrial work.

skatchewan Indians  
xamining a geiger  
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ored by the Province  
each these natives,  
ho depend on trap-  
ing and fishing for  
eir livelihood, to  
talk bigger game  
ith scientific aid.



Coastal Indians engage in salmon, halibut and herring fishing and clam digging and are also employed in fish and vegetable canneries, in logging and in lumber mills while, in the Maritimes particularly, they operate handicraft and woodworking shops, producing baskets, lobster crates, sash and door frames, etc. They frequently serve as guides for hunters and fishermen. In Alberta the Indian Band funds are sharing substantially in the newly found oil wealth, largely through revenues from the sale of oil leases and permits. Many new and improved homes have been erected particularly in the agricultural reserves adjoining industrial centres, where community halls, calf clubs, agricultural study groups and homemakers' clubs are becoming important factors in the advancement of the Indian through general welfare projects.

The Indian Affairs Branch operates day and residential schools for Indians throughout Canada. There are, in all, 450 schools of which 68 are residential and 34 seasonal. The remainder are regular day schools, several of which serve both white and Indian children. The enrolment in these schools for the academic year 1951-52 was 25,590. In addition, 2,365 Indian children were enrolled in provincial and private schools, universities, normal schools, nurse-training schools and commercial, trade and other schools.

The Indian school normally follows the course of study of the province in which it is located, supplemented, in some cases, by vocational training adapted to the needs of Indian pupils. The larger day and residential schools provide courses in leather work, wood work, metal work, boat-building, trapping, poultry-raising, cooking and service, and knitting and weaving. Regional inspectors are in the field to co-ordinate the work of Head Office and the schools and to assist in solving any problems that arise.

During the calendar year 1952, \$3,721,164 was paid either in cash or in kind on behalf of Indian children registered to receive the family allowance; at the end of the year 60,747 Indian children were registered.

**Eskimos.**—The Eskimos in Canada are found principally north of the tree-line on the northern fringe of the mainland, around the coast of Hudson Bay and on some of the islands of the Arctic Archipelago. The 1951 Census recorded an Eskimo population of 9,733, of whom 6,822 were in the Northwest Territories, 1,989 in Quebec and 769 in Newfoundland (Labrador).

The economy of these nomadic people depends almost entirely on trapping, hunting and fishing. They have little or no organization beyond the family and hunt in small groups, following the movements of game and the changing seasons. In recent years the Canadian Government has viewed with anxiety the effects on the Eskimo of the advance of civilization into the Arctic and has spent considerable sums in providing services to assist in their adjustment to an Arctic world that is beginning to change after centuries of isolation. The program includes education, health services, family allowances, handicrafts, and protective administration. At an Eskimo Conference held at Ottawa in May 1952, a committee was appointed to make a continuing and thorough study of Eskimo problems and a subcommittee was appointed to deal with education.

Throughout the Arctic, Eskimo children attend government and mission schools located in the settlements, but their nomadic life creates many problems and teaching periods have to be so arranged as to interfere as little as

**A Chesterfield Inlet Eskimo family in their igloo. The baby is being fed pabulum, one item on the list of selected foods distributed under the family allowance.**



possible with their normal hunting and trapping life. Most of the eastern Arctic Eskimos have mastered a system of syllabic writing while the western Arctic Eskimos use roman characters in their writing.

Medical and health services are provided by the Federal Government, assisted by resident missionaries, traders and the Royal Canadian Mounted Police. Nursing stations have been set up and, with the assistance of government grants, mission hospitals with resident government doctors are maintained at Aklavik, Chesterfield Inlet and Pangnirtung. Government doctors accompanying the Eastern Arctic Patrol treat the natives at each point of call.

Family allowances are paid to Eskimo families in kind from a list of selected items designed to supplement their normal dietary habits. The Canadian Handicrafts Guild, with Government assistance, encourages Eskimo handicraft by instruction and secures markets for the produce.

The Royal Canadian Mounted Police detachments throughout the Far North act as local representatives of the Government in all matters relating to Eskimo welfare. Contact is also maintained by radio, by inspection flights, and through the Eastern Arctic Patrol which carries representatives of all Government Departments concerned on annual tours of the Arctic.

## **Immigration**

In the calendar year 1952, Canada received 164,498 immigrants, a decrease of 15 p.c. from the 194,391 persons entering during the previous year. Of note was the 36-p.c. increase in British immigrants from overseas who numbered 42,675 as against 31,370 during 1951. There was also an increase of 20 p.c. in immigration from the United States, the comparative totals being 9,306 and 7,732. Northern European races contributed 62,401 immigrants to the 1952 total, a decrease of almost 9,500 from the 1951 figure, and there was a 40-p.c. decrease in numbers of immigrants of all other races, the 1952



total of 50,116 representing a decline of over 33,000, attributable in large measure to the cessation of the movement of displaced persons.

From the first of January 1946 to the end of December 1952, 789,278 immigrants were received by this country. British immigrants numbered 245,885, approximately 31 p.c. of the total. Immigrants of north European origin numbered 196,844, the leading individual racial groups being Dutch (71,036), German (76,265) and French (15,977). From the United States in the post-war period came 60,871 immigrants, all others numbering 285,678.

In 1952, a new Immigration Act (1 Eliz. II, c. 42), designed to permit a more effective and efficient administration of Government policy in this important field, was passed by Parliament and all previous legislation repealed.

The new Act strengthens the security regulations, giving wider powers to immigration authorities to refuse admission to persons whose known views and past activities indicate an unlikelihood of their becoming good citizens and to take steps against persons attempting to secure the admission of immigrants on false pretences. Authority is given for making loans to immigrants for specified purposes. This is a continuation of the Assisted Passage Plan in effect during 1951 for which money had been provided in the estimates. Under the Plan, immigrants with skills needed in Canada may have all or part of the cost of their passage advanced to them by the Government on a repayment basis. The maximum of such loans permitted to be outstanding at any one time is raised from \$9,000,000 to \$12,000,000. Administrative changes dealing with the machinery of boards of inquiry are made as well as changes concerning the responsibility for deportation costs in the case of immigrants who, upon arrival in Canada, are in possession of valid and subsisting immigrant visas issued by immigration officers.

The responsibility for all immigration matters under the provisions of the Immigration Act rests with the Minister of Citizenship and Immigration. The present general policy of the Government is to ensure the careful selection and permanent settlement of as many immigrants as can be absorbed advantageously in the national economy.



*Half a dozen European countries are represented in this group having dinner in an Ontario farmhouse. These men, most of whom are employed on nearby farms, are gathered here to help with the harvest.*



*Senior high-school students touring Ottawa during tulip time under a sponsored citizenship project.*

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## **Citizenship**

All persons born in Canada are Canadian citizens and cannot be deprived of their citizenship unless they themselves take definite steps to acquire another nationality. Immigrants who are naturalized in Canada become citizens and retain their citizenship so long as they remain domiciled in Canada or have authority for absence from Canada extended them and do not commit acts which result in revocation. A Canadian citizen holds also the status of a British subject.

An applicant for citizenship is required to have resided in Canada for five years. Besides showing those qualities of character that would lead him to be a hard-working law-abiding citizen, he must have an adequate knowledge of English or French and also a knowledge of Canadian history, geography, form of government, and of the duties and responsibilities of a good citizen.

The Department of Citizenship and Immigration administers the Canadian Citizenship Act, 1947, and provides leadership in the building of true citizenship among all Canadians. The Department co-operates with provincial departments of education and national, provincial and voluntary organizations in the development of citizenship programs designed to assist



in the adjustment of newcomers to the Canadian way of life and to develop among established citizens an appreciation of the customs, culture and contributions of the new residents. During the year ended Mar. 31, 1952, certificates of Canadian citizenship were issued to 19,833 persons.

## • *Vital Statistics*

The collection of vital statistics began in the older provinces with the registration of baptisms, marriages and burials by the ecclesiastical authorities. This practice was succeeded at varying dates by legislation requiring compulsory registration of births, marriages and deaths with the civil authorities in each province so that virtually every birth, marriage and death occurring in Canada is known to be registered.

Parents are responsible for registering the births of their children, within a specified period, with the local registrar of the area in which the birth occurs. In Quebec and Newfoundland a birth is generally registered, both for civil and ecclesiastical purposes, by the ecclesiastical authorities at the time of baptism; in cases where the child is not baptised shortly after birth or will not be baptised, there is provision for registration with the civil authorities. Similarly, a marriage must be registered by the officiating clergyman or marriage commissioner, as the case may be. Registration of death must be completed by the undertaker or person in charge of disposing of the body on behalf of the next-of-kin, and by the attending physician, medical examiner or coroner before a burial permit can be issued by the local registrar. Every registration is filed permanently in the office of the Registrar General of the province in which the event occurred.

Certificates issued to individuals from these records are almost essential for modern social and legal purposes. Birth certificates are generally required and accepted to prove or establish birthplace, birth date, citizenship, parentage and relationship to other members of the family, and are used for such purposes as the settlement of estates, identification, establishing legal dependency, eligibility for employment and pension and social welfare benefits. Similarly, death certificates are required for settling insurance claims, establishing right to remarry, tracing ancestry and other such purposes.

By a co-operative arrangement with the provincial vital statistics authorities, under whose jurisdiction the registration of vital events has always remained, national statistics have been compiled since 1921 and these statistics play an almost indispensable part in the national economy. Statistics on births, marriages and deaths are used as the basic measure, between decennial censuses, of the growth and composition of the population. As such, they provide the fundamental data needed in the continuous formulation of plans for goods and services on behalf of the people. For example, they indicate the trend of growth and composition of the native-born population, the proportions in the pre-school, school, adolescent, adult and ageing groups of the population, the trend of family formation and increase, fertility, the major causes of death, etc. They are essential for demographic, social, medical, public health and economic research, for such purposes as planning extension of hospital and medical services, housing and school facilities, medical and commercial goods and services. There is hardly a facet of the



country's economy, whether at the national, provincial, municipal or small-community level, that does not depend on accurate vital statistics. The Canadian registration system is regarded as one of the most complete and accurate in the world.

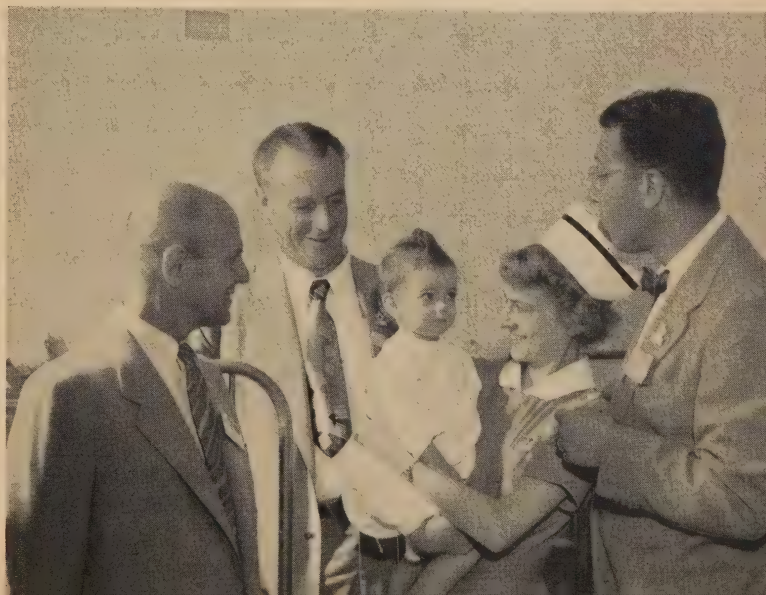
**Births.**—There have been several clear-cut cycles in the number of births recorded in Canada. From 1926 to 1930 there was a gradual upward trend from 232,750 to 243,495. This movement was reversed during the depression period until 1937 when the number reached its lowest point at 220,235. Since then the trend has been upward with a record total of 380,101 in 1951. Canada has always had a relatively high birth rate as compared with other major countries of the world. From 1926 to 1930, it was about 24 births per 1,000 population, dropping to 20 in 1937. The influence of the War was reflected in a sharp increase from 21.5 in 1940 to a record 28.7 in 1947. Since that date the rate has averaged slightly over 27.

Wherever birth statistics have been collected, they have shown an excess of male over female births. No conclusive explanation of this excess has yet been given. Nevertheless it is so much of an accepted statistical fact that an accurate ratio of male to female births has become one of the criteria of complete registration. The numbers of males to every 1,000 females born in Canada in 1941-46 varied between 1,057 and 1,067 and is now stabilized at about 1,060.

Hospitalization and medical attendance at birth have increased greatly in recent years. In 1926-30 only 22 p.c. of live births occurred in hospital or other institutions, while in 1950 the proportion was 76 p.c. In some provinces, particularly where either free or prepaid medical care service is provided, the proportions of hospitalized births were much higher, running to 97 p.c. in one province and to between 90 and 96 p.c. in four others.

**Deaths.**—The annual death rate in Canada has been less than 10 per 1,000 population over the past 20 years, which is fairly low in comparison with other countries, and set a record low of 9.0 in 1950 and 1951, a reduction

Doctors from many nations, attending the 18th Conference of the International Red Cross at Toronto, visited the Hospital for Sick Children, one of Canada's newest hospitals.



from 11.5 in 1921, despite an increase in the proportion of aged persons in the population. The age composition of the population at any point in time has a very great effect on the death rate. This accounts in the main for variations in crude rates among provinces from 8.5 to 12.5 for males and 6.5 to over 10 for females. Similarly, rates for rural and urban areas or among districts, even within a province, may vary widely. On the whole, death rates are about 20 p.c. higher for males than for females.

During the past 20 years, the average age at death has risen from about 45 to 55 for males and to 57 for females. If deaths of children under one year are excluded, the average age at death is now about 62 for males and 63 for females. Life expectancy at birth has accordingly risen from 60 for males and 62 for females to 65 and 69, respectively.

Of some 125,000 deaths in 1951, arteriosclerotic and degenerative heart disease, which is associated with ageing, accounted for over 31,000. Other forms of heart disease accounted for an additional 8,000 deaths. Almost 18,000 persons died from cancer, 3,400 from tuberculosis, about 13,000 from cerebral hæmorrhages and other vascular lesions, and 4,600 from pneumonia, while almost 10,000 died from conditions associated with birth or early infancy. Over 2,600 died as a result of motor-vehicle accidents and over 5,000 as a result of other accidents. More than 1,000 persons committed suicide.

Deaths of mothers due to childbirth have shown marked reduction in the past two decades and particularly since 1940. During the period 1926-30 an average of 57 mothers died for every 10,000 children born alive; in 1940 the ratio was 40 but by 1951 it had dropped to 11.

During recent years, the death rate for children under one year of age has shown substantial reduction, falling from 102 per 1,000 live births in 1926 to 60 in 1941 and 38 in 1951, the lowest in Canadian history.

Of the 14,600 infants who died in 1951 before reaching their first birthday, about 59 p.c. or almost 8,600 died within the first four weeks of life. Although the mortality rate for infants up to one year of age has been reduced  $2\frac{1}{2}$  times since 1921, that for infants under four weeks has been reduced only by one-half.

**Natural Increase.**—The rate of natural increase in population represents the difference between the birth and death rates and is similarly expressed in terms of 1,000 population. In 1926 the natural-increase rate amounted to 13.3 but, with the rapidly declining birth rates of the depression period coupled with slower declining death rates, the natural-increase rate declined to 9.7 in 1937. During the war and post-war years, the natural-increase rate rose proportionally with births to 12.2 in 1941, 13.9 in 1943 and 19.3 in 1947. The rate declined to 18.1 in 1950, rising to 18.2 in 1951.

**Marriages.**—In 1929 marriages in Canada numbered 77,288 having shown a steady increase from 66,658 in 1926. The depression exercised a marked influence on marriages, causing a steep downward movement until 1932, when the number of marriages was 62,531. From 1933 to 1942 a fairly steady increase took place and the rate rose from 6 to almost 11 per 1,000 population. The following table shows that the peak was reached in 1946 with over 134,000 marriages. A second peak occurred in 1951 with 128,230, but the rate was 9.2 as compared with 10.9 in 1946.

## Births, Marriages and Deaths, 1926-51

(Exclusive of the Yukon and Northwest Territories)

| Year                    | Births  |                   | Marriages |                   | Deaths  |                   | Maternal Deaths |                   |
|-------------------------|---------|-------------------|-----------|-------------------|---------|-------------------|-----------------|-------------------|
|                         | No.     | Rate <sup>1</sup> | No.       | Rate <sup>1</sup> | No.     | Rate <sup>1</sup> | No.             | Rate <sup>2</sup> |
| Av. 1926-30...          | 236,521 | 24.1              | 71,886    | 7.3               | 108,925 | 11.1              | 1,339           | 5.7               |
| Av. 1931-35...          | 228,352 | 21.5              | 68,594    | 6.5               | 103,602 | 9.8               | 1,153           | 5.0               |
| Av. 1936-40...          | 228,767 | 20.5              | 96,824    | 8.7               | 109,514 | 9.8               | 1,043           | 4.6               |
| Av. 1941-45...          | 276,832 | 23.5              | 113,936   | 9.7               | 115,144 | 9.8               | 791             | 2.9               |
| Av. 1946-50...          | 354,869 | 27.4              | 126,687   | 9.8               | 119,975 | 9.3               | 523             | 1.5               |
| 1946.....               | 330,732 | 27.0              | 134,088   | 10.9              | 114,931 | 9.4               | 595             | 1.8               |
| 1947.....               | 359,094 | 28.7              | 127,311   | 10.2              | 117,725 | 9.4               | 554             | 1.5               |
| 1948.....               | 347,307 | 27.1              | 123,314   | 9.6               | 119,384 | 9.3               | 510             | 1.5               |
| 1949 <sup>3</sup> ..... | 366,139 | 27.3              | 123,877   | 9.2               | 124,047 | 9.2               | 536             | 1.5               |
| 1950 <sup>3</sup> ..... | 371,071 | 27.1              | 124,845   | 9.1               | 123,789 | 9.0               | 420             | 1.1               |
| 1951 <sup>3</sup> ..... | 380,101 | 27.2              | 128,230   | 9.2               | 125,454 | 9.0               | 405             | 1.1               |

<sup>1</sup>Per 1,000 population.

<sup>2</sup>Per 1,000 live births.

<sup>3</sup>Includes Newfoundland.

## Births, Marriages and Deaths, by Provinces, 1951

(Exclusive of the Yukon and Northwest Territories)

| Province    | Births  |                   | Marriages |                   | Deaths  |                   | Maternal Deaths |                   |
|-------------|---------|-------------------|-----------|-------------------|---------|-------------------|-----------------|-------------------|
|             | No.     | Rate <sup>1</sup> | No.       | Rate <sup>1</sup> | No.     | Rate <sup>1</sup> | No.             | Rate <sup>2</sup> |
| Nfld.....   | 11,738  | 32.5              | 2,517     | 7.0               | 3,004   | 8.3               | 25              | 2.1               |
| P.E.I.....  | 2,655   | 27.1              | 583       | 5.9               | 904     | 9.2               | 1               | 0.4               |
| N.S.....    | 17,126  | 26.6              | 5,094     | 7.9               | 5,812   | 9.0               | 12              | 0.7               |
| N.B.....    | 16,075  | 31.2              | 4,386     | 8.5               | 4,873   | 9.4               | 11              | 0.7               |
| Que.....    | 120,924 | 29.8              | 35,704    | 8.8               | 34,900  | 8.6               | 180             | 1.5               |
| Ont.....    | 114,824 | 25.0              | 45,198    | 9.8               | 43,981  | 9.6               | 97              | 0.8               |
| Man.....    | 19,942  | 25.7              | 7,366     | 9.5               | 6,735   | 8.7               | 22              | 1.1               |
| Sask.....   | 21,739  | 26.1              | 6,805     | 8.2               | 6,440   | 7.7               | 22              | 1.0               |
| Alta.....   | 27,004  | 28.7              | 9,305     | 9.9               | 7,167   | 7.6               | 15              | 0.6               |
| B.C.....    | 28,074  | 24.1              | 11,272    | 9.7               | 11,638  | 10.0              | 20              | 0.7               |
| Canada..... | 380,101 | 27.2              | 128,230   | 9.2               | 125,454 | 9.0               | 405             | 1.1               |

<sup>1</sup> Per 1,000 population.

<sup>2</sup> Per 1,000 live births.



Packaging insulin produced at the Connaught Laboratory, University of Toronto. Since the Laboratory holds the patents on insulin, it issues manufacturing licences and keeps careful control of the quality of all insulin produced throughout the world.





*His Excellency the Right Honourable Vincent Massey, C.H., Governor General of Canada: takes the salute from the Guard of Honour as he leaves the Parliament Buildings following the ceremony installing him in office, Feb. 28, 1952*

# The Government

THE British North America Act of 1867 together with its amendments forms the written basis of the constitution by which Canada is governed, but it does not comprise the whole constitution. Those matters concerning the liberties of the individual, the democratic principles that hold his respect and the parliamentary procedures to which he adheres depend not upon a written constitution but upon statutory and common law and upon usages or conventions that have gradually become part of the Canadian citizen's experiences and his concept of democratic life.

Canada is a federal state. Its system of government includes a central governing body at Ottawa, ten component provincial governments and many municipal corporations. The British North America Act divides the field of legislative and executive power between national and provincial authorities. It provides also the legal framework for national and provincial political institutions, but leaves the provinces full discretion to amend their own constitutions. Generally speaking, all matters of national concern are under the jurisdiction of the Federal Government, which is authorized to make laws for the peace, order and good government of the country. The Federal Government has also unlimited powers of taxation. Matters of local concern are dealt with by the provincial legislatures, including such items as education, the administration of justice, municipal institutions, provincial prisons and reformatories, hospitals and welfare institutions and administration of public lands. The powers of municipal corporations, exercised through elected councils, are delegated to them by the provinces and thus are varied in extent.

**Federal Government.**—The Federal Parliament consists of the Governor General and the Queen's Privy Council for Canada (of which the Cabinet is the active component) at the head of the Executive Branch, the Senate and the House of Commons comprising the Legislative Branch and the Courts representing the Judicial Branch.

The Governor General, appointed by the Queen on the advice of the Prime Minister of Canada, traditionally serves for a term of five years and acts only on the advice of the Queen's Privy Council for Canada. The present Governor General is His Excellency the Right Honourable Vincent Massey, C.H., who was appointed Jan. 24, 1952.

The Queen's Privy Council for Canada is composed of about 70 members who are sworn of the Council by the Governor General on the advice of the Prime Minister and who retain membership for life. The Council consists mostly of present and former Ministers of the Crown. It does not meet as a functioning body and its constitutional responsibilities are performed exclusively by the Ministers who constitute the Cabinet of the day and serve as the Committee of the Queen's Privy Council for Canada.

The Cabinet is the policy-forming body of the Government and sponsors most of the important legislation introduced into Parliament. Its members are chosen by the Prime Minister from among his party following in the House of Commons or the Senate; each generally assumes charge of one of the various





*The Right Honourable Louis S. St. Laurent, Prime Minister of Canada, signing the application of the Government of Canada to the International Joint Commission for the development of power in the international rapids section of the St. Lawrence River. Witnessing the signing is Mr. Dana Wilgress, Under-Secretary of State for External Affairs.*

Departments of Government, although a Minister may hold more than one portfolio at the same time, or may be without portfolio. Members of the Cabinet as at Dec. 31, 1952, and the portfolios held by them were as follows, listed according to precedence:—

Prime Minister and President of the Queen's Privy Council for Canada.....  
 Minister of Trade and Commerce and Minister of Defence Production.....  
 Minister of Agriculture.....  
 Minister of Public Works.....  
 Minister of National Defence.....  
 Minister of Transport.....  
 Minister of National Health and Welfare.....  
 Minister of Finance and Receiver General...  
 Minister of National Revenue.....  
 Leader of the Government in the Senate...  
 Minister of Labour.....  
 Secretary of State for External Affairs....  
 Minister of Justice and Attorney General...  
 Minister of Resources and Development...  
 Secretary of State.....  
 Minister of Veterans Affairs.....  
 Minister of Citizenship and Immigration...  
 Minister of Mines and Technical Surveys...  
 Postmaster General.....  
 Minister of Fisheries.....  
 Solicitor General.....

Rt. Hon. Louis Stephen St. Laurent

Rt. Hon. Clarence Decatur Howe  
 Rt. Hon. James Garfield Gardiner  
 Hon. Alphonse Fournier  
 Hon. Brooke Claxton  
 Hon. Lionel Chevrier  
 Hon. Paul Joseph James Martin  
 Hon. Douglas Charles Abbott  
 Hon. James Joseph McCann  
 Hon. Wishart McLea Robertson  
 Hon. Milton Fowler Gregg  
 Hon. Lester Bowles Pearson  
 Hon. Stuart Sinclair Garson  
 Hon. Robert Henry Winters  
 Hon. Frederick Gordon Bradley  
 Hon. Hugues Lapointe  
 Hon. Walter Edward Harris  
 Hon. George Prudham  
 Hon. Alcide Côté  
 Hon. James Sinclair  
 Hon. Ralph Osborne Campney

The Legislative Branch of government, consisting of the Senate and the House of Commons, is responsible for the enactment of all legislation. Bills may originate in either House, except that those connected with the raising or spending of money must be introduced in the House of Commons. Bills must pass both Houses and receive Royal Assent before becoming law. Members of the Senate are appointed for life by the Governor General on the advice of the Prime Minister. Representation is arranged so as to give some measure of equality to the different sections of the country. Its membership of 102 is allotted as follows: Quebec and Ontario 24 members each; Nova Scotia and New Brunswick 10 each; the four western provinces 6 each; Newfoundland 6 and Prince Edward Island 4. The House of Commons has



262 members elected directly by the people for a maximum term of five years. Provincial distribution at present is as follows:

|                    |    |                  |    |                  |   |
|--------------------|----|------------------|----|------------------|---|
| Ontario.....       | 83 | Alberta.....     | 17 | Newfoundland.... | 7 |
| Quebec.....        | 73 | Manitoba.....    | 16 | Prince Edward    |   |
| Saskatchewan....   | 20 | Nova Scotia..... | 13 | Island.....      | 4 |
| British Columbia.. | 18 | New Brunswick..  | 10 | Yukon-Mackenzie  |   |
|                    |    |                  |    | River.....       | 1 |

The number of members assigned to each province is computed according to population and is adjusted following each decennial census. The adjustment following the 1951 Census has increased the total membership to 265, effective as at the first general election after the Census year.

The right to vote in federal elections is conferred on all British subjects, men and women, who have attained the age of 21 and have resided in Canada for 12 months prior to polling day. The few exceptions include judges, Eskimos, inmates of penal institutions and the insane.

The judicial branch of the Federal Government comprises the Supreme Court of Canada, the Exchequer Court of Canada and courts established under the Railway Act, the Bankruptcy Act and the Farmers' Creditors Arrangement Act. The Supreme Court is the final court of appeal in Canada. The Chief



*Parade to the Senate. Members of the House of Commons on their way from the Green Chamber in the Parliament Buildings to the Senate Chamber for the opening of the Seventh Session of Canada's 21st Parliament, Nov. 20, 1952.*

Justice of Canada and the puisne judges of the Supreme and Exchequer Courts are appointed by the Governor General in Council.

The Governor General receives a salary of £10,000 (of the value of \$48,667) a year, charged against the consolidated revenue of Canada, also an annual allowance of \$100,000 and a motor-car maintenance grant of \$2,300. Members of the Senate and of the House of Commons each receive a sessional indemnity of \$4,000 and, in addition, an annual expense allowance of \$2,000. The remuneration of the Prime Minister is \$15,000 a year, a Cabinet Minister \$10,000 a year, and the Leader of the Opposition \$10,000 a year, in addition to the sessional indemnity and the expense allowance. A Cabinet Minister is also entitled to a motor-car allowance of \$2,000 a year. The salary of the Chief Justice of Canada is \$25,000 a year and the Judges of the Supreme Court of Canada each receive \$20,000 a year.

The day-to-day work of the Canadian Government is carried on by the Federal Civil Service, which includes all servants of the Crown, other than those holding political or judicial office, who are employed in a civil capacity. Members of the Civil Service form the staffs of the various departments, commissions, boards, bureaus and other agencies of the Government and nearly every type of occupation is represented. A few civil servants are appointed by either or both Houses of Parliament directly, by a number of departments and other agencies in accordance with the provisions of certain statutes, but by far the majority are selected and appointed by the Civil Service Commission, the central personnel agency of the Federal Government.

At Mar. 31, 1952, there were 131,646 civil servants—53,514 permanent employees who received \$15,505,170 in the month of March, and 78,132 temporaries who received \$15,516,527. In addition \$13,245,694 was paid to certain non-enumerated classes, the number of whom was not known.

**Provincial Government.**—In the provinces, government is conducted along the same general lines as the Federal Government. The Lieutenant-Governor in each province is the representative of the Crown and is appointed by the Governor General in Council for a term of five years. The provinces, with the exception of Quebec, have one legislative body known as the Legislative Assembly, whose members are elected by popular vote. Quebec still retains a second legislative body, corresponding to the Senate, known as the Legislative Council, the members of which are appointed for life. In the provinces, the Executive Councils perform functions parallel to those of the Federal Cabinet.



*Federal Government employees operating vari-type machines in the Dominion Bureau of Statistics. Statistical reports are vari-typed for reproduction by offset printing process.*





*Legislative Building, Regina, Sask.*

The Legislature of each province makes laws in relation to the administration of justice in the province including the constitution, maintenance and organization of provincial, civil and criminal courts. The judges of the Superior, District and County Courts in each province, except those of the Courts of Probate in Nova Scotia and New Brunswick, are appointed by the Federal Government from the bars of their respective provinces. Judges' salaries and pensions are also fixed by the Federal Parliament.

**Government of the Territories.**—The Yukon and Northwest Territories, those vast northern areas with their small and scattered populations, are under the administration and protection of the Federal Government. Yukon has a local government composed of a Commissioner appointed by the Governor General in Council and a Territorial Council of three members elected for a three-year term. The Government of the Northwest Territories is vested in a Commissioner, appointed by the Governor General in Council, assisted by a Council composed of eight members three of whom are elected to represent separate districts. The other five are appointed by the Governor in Council. A new Northwest Territories Act passed in 1952 (1 Eliz. II, c. 46) confers upon the Commissioner additional legislative jurisdiction in a number of matters and makes other administrative changes that give to the Territories a greater measure of self-government than they have hitherto had.

**Municipal Government.**—Under the British North America Act, the municipalities are the creation of the Provincial Governments and for this reason their bases of organization and their powers differ. However, most of these municipal governments, like other forms of government, have found their spheres of activity continually broadening and have developed considerable powers of local self-government. There are 4,137 incorporated municipalities in Canada, of which 1,789 are urban.





Many volunteer welfare agencies contribute greatly to the physical well-being and thus to the mental outlook of Canada's youth. Here Y.W.C.A. girls enjoy summer camp.

# *Health and Welfare Veterans Affairs*

**G**OVERNMENT expenditure in the fields of health, welfare and social security are now larger than expenditures for any other peacetime purpose and rank second only to expenditure for national defence. While definitions may vary as to what should or should not be included in any tabulation of health, welfare or social security expenditure, it may safely be estimated that the total of federal, provincial and municipal expenditure in these fields stands currently at not less than \$1,300,000,000 annually and may be as high as \$1,500,000,000. Thus, such expenditure in 1952 will amount to not less than 20 p.c. of the total expenditure made by all levels of government.

## **• Public Health**

Responsibility for the planning and supervision of public health services in Canada has rested largely with provincial and local authorities, with assistance from voluntary agencies. In recent years, however, the Federal Government, in keeping with the trend towards shifting at least part of the financial burden to the authority with greater tax powers, has offered to assist with the costs of capital construction in connection with hospitals and other health facilities and with the extension of specific services through the National Health Grants. It has also extended other services.

The Dominion Council of Health, composed of the Deputy Minister of National Health, the chief health officer of each province and five other members, meets twice a year to co-ordinate federal and provincial activities and to plan the extension of public health programs throughout Canada.

## **Federal Health Services**

Federal participation in health matters is centred in the Department of National Health and Welfare, although important programs are administered by other departments. The Department of Veterans Affairs provides medical and hospital care for veterans, the Department of National Defence is responsible for the health of the Armed Forces, the National Research Council co-ordinates medical research and the Department of Agriculture has certain responsibilities in connection with food production.

The Federal Government, through the Department of National Health and Welfare, administers many protective measures including the exclusion of infectious diseases at seaports, the medical examination of immigrants, the care of sick mariners, the safeguarding of boundary and other waters against pollution, and the distribution of narcotics. It is also responsible for control of the quality of food, drugs and patent medicines offered for sale. Health services for Indians and Eskimos come under the jurisdiction of the Department of National Health and Welfare as well as the promotion of the health of



*Specimens of malignant growths are collected, recorded and filed at the Canadian Tumor Registry. The services of the Registry are available to pathologists in all parts of Canada to aid in the study, diagnosis and treatment of human tumors.*

Federal Government employees. Financial assistance is provided by the Federal Government for remedial services for blind pensioners.

Under the National Health Grant Program, funds are made available to the provinces for the extension of existing health services and facilities. The program includes grants for general public health, tuberculosis control, mental health, venereal disease control, cancer control, services for crippled children, professional training, public health research, hospital construction, and for the carrying out of health surveys. The amount made available for all grants for the year ending Mar. 31, 1953, was \$53,968,409. Grants are also paid to many non-government agencies engaged in health work.

Federal assistance to medical research is provided through research grants, direction and control over which is exercised by the Privy Council Committee on Scientific and Industrial Research.

### ***Provincial and Municipal Health Services***

Although basic local health services such as sanitation, communicable disease control and registration of births, deaths and marriages are generally the obligation of cities, municipalities, counties or other local units, provincial governments have gradually assumed increased financial responsibility, with correspondingly increased supervision and control. The provincial departments of health generally plan and direct such health services as vital statistics, infant, child and maternal hygiene, public health laboratories, health education and public health nursing, as well as communicable disease control and public health engineering.

Diagnostic and treatment clinics are provided in various provinces for such diseases as tuberculosis, venereal diseases, cancer, poliomyelitis and mental illness. In some cases vaccines, sera and other special drugs are supplied by provincial laboratories to practicing physicians as well as to public health officials. Other activities of the local and provincial health departments include dental services, school medical services, epidemiology and industrial hygiene.



Public hospitals for acute diseases receive provincial grants, supplemented in many cases by aid from municipalities and private benefactors. Most provinces operate tuberculosis sanatoria or contribute to their maintenance, but mental hospitals are usually wholly provincial institutions.

Free treatment for all illnesses is given to indigents and, in some cases, to all residents for certain diseases such as tuberculosis. In Alberta a maternity hospitalization service is provided by the Province. In Saskatchewan and British Columbia there are Provincial Government prepaid hospitalization programs supported by an annual tax on each resident with a maximum payment for a family. The Newfoundland Government operates cottage hospitals in outport areas and, in conjunction with these, medical and hospital

*Health services for residents in remote areas are conducted by the provinces or by voluntary agencies usually with provincial financial assistance.*

*Free dental care is given to school children in outlying districts of northern Ontario in a dental car operated by the Ontario Department of Health.*



*Chief surgeon at the Grenfell Mission Hospital, St. Anthony, Nfld., gives instructions by radio-telephone to a Mission nursing station.*



care is provided upon payment of an annual fee. Private prepaid medical care and hospital insurance plans have been developed extensively throughout Canada.

## Statistics on Health Institutions

Hospital statistics have been collected by the Dominion Bureau of Statistics since 1931 and annual data are available concerning the types, sizes, ownership, costs, revenues, movement of patients, etc.

In 1950, 1,170 hospitals reported data on their operations. General hospitals, which numbered 949 and represented 81 p.c. of all reporting hospitals, accounted for 94 p.c. of the admissions but for only 51 p.c. of the total reported bed capacity and 45 p.c. of the average daily population. On the other hand, although hospitals for tuberculosis and mental diseases represented only 12 p.c. of the hospitals and accounted for only 1.5 p.c. of the admissions, they had 42 p.c. of the bed capacity and 49 p.c. of the average daily population.

### Summary Hospital Statistics, 1950

| Item                      | Hospitals for Acute Diseases <sup>1</sup> |         | Hospitals for Tuberculosis | Hospitals for Mental Diseases | Total     |
|---------------------------|-------------------------------------------|---------|----------------------------|-------------------------------|-----------|
|                           | General                                   | Special |                            |                               |           |
|                           | No.                                       | No.     | No.                        | No.                           | No.       |
| <b>Public Hospitals—</b>  |                                           |         |                            |                               |           |
| Federal— <sup>2</sup>     |                                           |         |                            |                               |           |
| Hospitals reporting.....  | 40 <sup>3</sup>                           | —       | 10                         | —                             | 50        |
| Bed capacity.....         | 10,300                                    | —       | 1,788                      | —                             | 12,088    |
| Av. daily population..... | 8,978                                     | —       | 1,492                      | —                             | 10,470    |
| Admissions.....           | 53,832                                    | —       | 1,252                      | —                             | 55,084    |
| Provincial—               |                                           |         |                            |                               |           |
| Hospitals reporting.....  | 7                                         | 3       | 21                         | 45                            | 76        |
| Bed capacity.....         | 1,243                                     | 353     | 3,745                      | 41,504                        | 46,845    |
| Av. daily population..... | 924                                       | 306     | 3,466                      | 50,907                        | 55,603    |
| Admissions.....           | 23,621                                    | 109     | 4,157                      | 13,556                        | 41,443    |
| Other Public—             |                                           |         |                            |                               |           |
| Hospitals reporting.....  | 677                                       | 80      | 42                         | 16                            | 815       |
| Bed capacity.....         | 56,301                                    | 10,118  | 10,072                     | 1,746                         | 78,237    |
| Av. daily population..... | 48,248                                    | 8,574   | 8,575                      | 1,759                         | 67,156    |
| Admissions.....           | 1,729,907                                 | 97,857  | 9,452                      | 173                           | 1,837,389 |
| <b>Private Hospitals—</b> |                                           |         |                            |                               |           |
| Hospitals reporting.....  | 225                                       | —       | 1                          | 3                             | 229       |
| Bed capacity.....         | 3,955                                     | —       | 12                         | 333                           | 4,300     |
| Av. daily population..... | 2,822                                     | —       | 5                          | 343                           | 3,170     |
| Admissions.....           | 68,164                                    | —       | 3                          | 2,338                         | 70,505    |
| <b>All Hospitals—</b>     |                                           |         |                            |                               |           |
| Hospitals reporting.....  | 949                                       | 83      | 74                         | 64                            | 1,170     |
| Bed capacity.....         | 71,799                                    | 10,471  | 15,617                     | 43,583                        | 141,470   |
| Av. daily population..... | 60,972                                    | 8,880   | 13,538                     | 53,009                        | 136,399   |
| Admissions.....           | 1,875,524                                 | 97,966  | 14,864                     | 16,067                        | 2,004,421 |

<sup>1</sup> Excludes Newfoundland.

<sup>2</sup> Excludes Department of National Defence hospitals (movement of population not available for publication), and two Department of National Health and Welfare hospitals (no report).

<sup>3</sup> Includes two hospitals (with a combined capacity of 2,600 beds) which had a total of 1,398 beds for mental patients.

The participation of the federal and provincial governments in actual hospital operation is indicated by the fact that their 126 hospitals, only 11 p.c. of the total, had more than 40 p.c. of the total bed capacity and slightly less than half of the average daily population. However, because 76

of these hospitals were for tuberculosis and mental diseases, the federal and provincial hospitals accounted for only 5 p.c. of hospital admissions in 1950.

The cost of rendering service to patients varies inversely with the average length of patients stay. As a rule, hospitals with a long average stay have lower cost per patient day than those with a shorter average stay. This is shown by the differences in average cost per patient day in the various types of hospital. Public general hospitals, with an average stay of 10 days, had an average cost per patient day of \$8.12 in 1950. Public special hospitals which had a longer average stay (21 days) had a lower average cost (\$6.52). Hospitals for tuberculosis had an average stay of six months and an average cost of \$4.85 per patient day. Mental hospitals with an average stay of 9.5 months showed the lowest average cost per patient day (\$2.23).

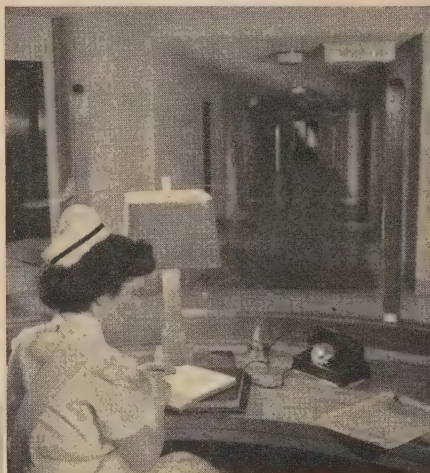
### ***Non-Governmental Health Agencies***

In addition to many local and provincial health organizations, major national agencies are: the Canadian Red Cross, which has converted its wartime blood-donor service into a civilian blood bank and transfusion service; the Victorian Order of Nurses, with well-established home-nursing and maternity services; the Order of St. John, with its training and service in

*Call nurse on night duty at Victoria  
General Hospital, Halifax, N.S.*



*Administration Building of the Van-  
couver General Hospital, Vancouver,  
B.C.*





first aid, home-nursing and blood grouping; and the Canadian Tuberculosis Association, whose provincial branches conduct mass X-ray surveys and educational programs. The Health League of Canada sponsors educational and publicity work in health generally and the Canadian Mental Health Association operates similarly in its field. The Department of National Health and Welfare was instrumental in forming the National Cancer Institute and the Canadian Arthritis and Rheumatism Society. These and other national health agencies have been established for purposes of education, publicity, research and other services.

## • Welfare and Social Security

Voluntary groups and local authorities provided the first welfare services in Canada, provincial participation beginning with the first modern child protection Act passed by Ontario in 1893, the Ontario Workmen's Compensation Act of 1914 and the Manitoba mothers' allowances legislation of 1916. Since then, provincial welfare services have been developed, extended and improved through the establishment of provincial departments of welfare, or of health and welfare.

The joint federal-provincial legislation for old age pensions in 1927 brought the Federal Government into the social security field and, accelerated by the experience of the depression of the 1930's, a process of gradual extension of federal activity has taken place. Successively, pensions for the blind, unemployment insurance, agricultural relief and family allowances were developed, either jointly with the provinces or by the Federal Government itself. In 1951 a major extension took place with the new federal universal pension for all persons of 70 years of age or over and the new legislation reimbursing the provinces for part of the cost of allowances for blind persons and for assistance for needy persons aged 65 to 69.

## Federal Welfare Services

Most Federal Government welfare services are under the jurisdiction of the Department of National Health and Welfare, whose main functions in



*In co-operation with the Department of Agriculture, the Department of National Health and Welfare is carrying out studies of the health hazards of new organic insecticides. Here a worker operates a broom-type spray in an apple orchard.*

the field of welfare include the promotion of social security and the social welfare of the people of Canada, investigation and research, preparation and distribution of information on social and industrial conditions affecting the lives and health of the people, and co-operation with provincial authorities with a view to co-ordination of efforts in the welfare field. The Welfare Branch administers family allowances, the universal old age pensions program, federal grants to the provinces for old age assistance, allowances for blind persons and grants for the physical fitness program. Certain welfare services are administered by other government departments: allowances paid to veterans' dependants and to non-pensionable veterans are administered by the Department of Veterans Affairs (*see* p. 102); the Department of Citizenship and Immigration is responsible for the welfare of Indians (*see* p. 70); and the Department of Resources and Development co-operates in the care of indigent white and half-breed persons in the northern territories and in the payment of family allowances to Eskimos (*see* p. 72).

**Family Allowances.**—The Family Allowances Act, 1944, introduced to provide more equal opportunity for the children of Canada, provides for monthly payments to mothers (except in unusual circumstances) which must be spent exclusively for the maintenance, care, training, education and advancement of children.

In general, all children under 16 years of age, resident in Canada, including Indians and Eskimos, are eligible for allowances. Children entering Canada, with the exception of children of certain Canadian citizens temporarily resident abroad, must complete one year's residence immediately prior to registration for the allowances. Allowances are not payable on behalf of a child who fails to attend school as required by the laws of the province in which he resides.

The allowances, which involve no means test and are not considered as income for tax purposes, are paid by cheque at the following monthly rates: children under 6 years of age, \$5; children from 6-9 years of age, \$6; children from 10-12 years of age, \$7; and children from 13-15 years of age, \$8. Current disbursements under the Family Allowances Act amount to about \$330,000,000 per annum.

#### *Family Allowance Statistics, by Provinces, June 1952*

| Province or Territory           | Families Receiving Allowances | Total Children   | Average Allowance per Family | Average Allowance per Child | Total Allowances Paid, June 1952 |
|---------------------------------|-------------------------------|------------------|------------------------------|-----------------------------|----------------------------------|
|                                 | No.                           | No.              | \$                           | \$                          | \$                               |
| Newfoundland.....               | 52,794                        | 152,598          | 17.24                        | 5.96                        | 910,106                          |
| Prince Edward Island.....       | 13,281                        | 34,837           | 15.76                        | 6.01                        | 209,322                          |
| Nova Scotia.....                | 93,175                        | 223,268          | 14.47                        | 6.04                        | 1,348,033                        |
| New Brunswick.....              | 73,701                        | 197,177          | 16.02                        | 5.99                        | 1,180,953                        |
| Quebec.....                     | 548,702                       | 1,467,334        | 16.11                        | 6.02                        | 8,840,587                        |
| Ontario.....                    | 657,584                       | 1,344,916        | 12.24                        | 5.98                        | 8,050,180                        |
| Manitoba.....                   | 111,215                       | 237,712          | 12.81                        | 5.99                        | 1,424,733                        |
| Saskatchewan.....               | 119,609                       | 269,254          | 13.67                        | 6.07                        | 1,634,658                        |
| Alberta.....                    | 142,158                       | 307,850          | 13.00                        | 6.00                        | 1,848,400                        |
| British Columbia.....           | 168,210                       | 333,423          | 11.87                        | 5.99                        | 1,996,203                        |
| Yukon and Northwest Territories | 4,109                         | 9,209            | 13.87                        | 6.19                        | 56,990                           |
| <b>Canada.....</b>              | <b>1,984,538</b>              | <b>4,577,578</b> | <b>13.86</b>                 | <b>6.01</b>                 | <b>27,500,165</b>                |

**Old Age Income Maintenance Programs.**—Protection for persons in the older age groups was greatly extended commencing January 1952. The Old Age Assistance Act, passed in June 1951, provides for federal grants-in-aid to the provinces for old age assistance payments on a means-test basis to persons aged 65 to 69. The Old Age Security Act, passed in December 1951, provides for universal federal pensions to all persons 70 years of age or over. These two measures replace the former federal-provincial old age pension program under which pensions, subject to a means test, were payable at the age of 70.

Under the Old Age Security Act, commencing January 1952, the Federal Government pays a pension of \$40 a month to all persons aged 70 or over, subject to a residence qualification of 20 years (or more in certain cases). This universal pension, a financial and administrative responsibility of the Federal Government, is financed by a 2-p.c. sales tax, a 2-p.c. tax on net corporation income, and a 2-p.c. tax not to exceed \$60 a year on the net taxable income of individuals required to pay income tax.

The regional offices of the Welfare Branch of the Department of National Health and Welfare are used for the administration of universal old age pensions. Application forms are available in all post offices in Canada and may be submitted to the Regional Director of Old Age Security in the capital city of each province. Residents of the Yukon Territory and the Northwest Territories are required to send their applications to the Regional Director of Old Age Security, Department of National Health and Welfare, Ottawa.

### *Old Age Security Statistics, by Provinces, June 1952*

| Province or Territory | Pensions | Total Payment | Province or Territory | Pensions       | Total Payment     |
|-----------------------|----------|---------------|-----------------------|----------------|-------------------|
|                       | No.      | \$            |                       | No.            | \$                |
| Newfoundland.....     | 14,291   | 574,040       | Manitoba.....         | 38,875         | 1,557,480         |
| Prince Edward Island  | 6,492    | 261,120       | Saskatchewan.....     | 38,615         | 1,556,600         |
| Nova Scotia.....      | 35,394   | 1,429,440     | Alberta.....          | 37,894         | 1,524,880         |
| New Brunswick.....    | 25,126   | 1,012,000     | British Columbia...   | 74,392         | 2,989,760         |
| Quebec.....           | 143,153  | 5,745,176     | Yukon and N.W.T.      | 442            | 17,600            |
| Ontario.....          | 244,935  | 9,806,680     | <b>Canada.....</b>    | <b>659,609</b> | <b>26,474,776</b> |

The Old Age Assistance Act 1951 provides for federal contributions to the provinces for assistance, not exceeding \$40 a month, to persons between the ages of 65 and 69, subject to a residence qualification of at least 20 years. For a single person, total income, including the assistance, cannot exceed \$720 a year and for a married couple, \$1,200 a year. Where one of the spouses is blind, within the meaning of the Blind Persons Act, the total income of the couple, including the assistance, cannot exceed \$1,320 a year. Within the limits of the Act, each province is free to fix the amount of the maximum assistance payable, the maximum income allowed and other conditions of eligibility, but the Federal Government's contribution cannot exceed 50 p.c. of \$40 a month or of the assistance paid whichever is less. Implementation of the program in a province is contingent on the province passing enabling legislation and signing an agreement with the Federal Government. All provinces and the Northwest Territories have signed agreements and the



maximum assistance payable in each case is \$40 monthly, except in Newfoundland where it is \$30. Old Age assistance is administered and paid by the provinces with federal reimbursement.

*Old Age Assistance Statistics, by Provinces, June 1952*

| Province or Territory      | Recipients | Average Monthly Assistance <sup>1</sup> | Pensioners to Population Age 65-69 | Federal Government's Contribution |
|----------------------------|------------|-----------------------------------------|------------------------------------|-----------------------------------|
|                            | No.        | \$                                      | p.c.                               | \$                                |
| Newfoundland.....          | 4,083      | 29.05                                   | 45.4                               | 63,845                            |
| Prince Edward Island.....  | 441        | 21.66                                   | 13.4                               | 4,790                             |
| Nova Scotia.....           | 3,569      | 33.63                                   | 18.3                               | 67,530                            |
| New Brunswick.....         | 4,384      | 36.71                                   | 31.1                               | 90,121                            |
| Quebec.....                | 26,842     | 37.95                                   | 28.2                               | 816,243                           |
| Ontario.....               | 17,191     | 37.00                                   | 10.9                               | 432,271                           |
| Manitoba.....              | 2,867      | 38.24                                   | 10.4                               | 86,604                            |
| Saskatchewan.....          | 3,679      | 37.95                                   | 12.7                               | 79,363                            |
| Alberta.....               | 3,734      | 37.29                                   | 12.5                               | 73,107                            |
| British Columbia.....      | 6,082      | 37.79                                   | 11.6                               | 135,975                           |
| Northwest Territories..... | —          | —                                       | —                                  | —                                 |
| Canada <sup>2</sup> .....  | 72,872     | 36.81                                   | 16.7                               | 1,849,850                         |

<sup>1</sup> Excludes supplements paid by certain provinces.  
<sup>2</sup> No agreement made with Yukon Territory.

**Allowances for the Blind.**—The Blind Persons Act 1951, which became effective January 1952, continues in amended form the legislation relating to the payment of means-test pensions to blind persons under the Old Age

*The Canadian National Institute for the Blind is supported by Government grants and voluntary contributions. It provides extensive teaching and rehabilitation services for blind persons throughout the country. Here is shown the Vancouver headquarters building.*



Pensions Act 1927. The eligible age is 21 years or over, the maximum allowance \$40 a month and the residence requirement 10 years. The maximum yearly income limits, including the allowance, are: \$840 for a single person; \$1,040 for a single person with one or more dependent children; \$1,320 for a married couple one of whom is blind; \$1,440 for a married couple both of whom are blind. The implementation of the program is contingent on the signing of an agreement between the provincial and federal governments and each province is free to fix the amount of maximum allowance payable and the maximum income allowed, the Federal Government agreeing to contribute 75 p.c. of \$40 per month or of the allowance whichever is less. All provinces and the Northwest Territories have signed agreements, under each of which the maximum allowance is \$40 a month. The program is administered by the provinces.

**Statistics of Allowances Paid under the Blind Persons Act, by Provinces,  
June 1952**

| Province or Territory          | Pensioners   | Average Monthly Allowance <sup>1</sup> | Pensioners to Population Age 20-69 | Federal Government's Contribution |
|--------------------------------|--------------|----------------------------------------|------------------------------------|-----------------------------------|
|                                | No.          | \$                                     | p.c.                               | \$                                |
| Newfoundland.....              | 320          | 39.10                                  | 0.18                               | 9,595                             |
| Prince Edward Island.....      | 78           | 38.14                                  | 0.15                               | 2,231                             |
| Nova Scotia.....               | 731          | 38.67                                  | 0.21                               | 21,141                            |
| New Brunswick.....             | 772          | 39.29                                  | 0.29                               | 23,001                            |
| Quebec.....                    | 3,070        | 39.44                                  | 0.13                               | 98,210                            |
| Ontario.....                   | 1,691        | 39.23                                  | 0.06                               | 57,803                            |
| Manitoba.....                  | 394          | 39.43                                  | 0.08                               | 12,118                            |
| Saskatchewan.....              | 339          | 39.57                                  | 0.07                               | 10,509                            |
| Alberta.....                   | 380          | 38.61                                  | 0.07                               | 11,599                            |
| British Columbia.....          | 439          | 39.13                                  | 0.06                               | 13,155                            |
| Northwest Territories.....     | 1            | 40.00                                  | 0.01                               | 30                                |
| <b>Canada<sup>2</sup>.....</b> | <b>8,215</b> | <b>39.24</b>                           | <b>0.10</b>                        | <b>259,392</b>                    |

<sup>1</sup> Excludes supplements paid by certain provinces.  
Yukon Territory.

<sup>2</sup> No agreement made with

**Physical Fitness.**—Under the National Physical Fitness Act 1943, the Federal Government makes available to the provinces on a per capita basis an amount not exceeding \$232,000 annually for the promotion of physical fitness and recreational programs. Financial assistance is given only to those provinces that have signed agreements with the Federal Government and to the extent to which they match them dollar for dollar up to the maximum available.

| Province   | Annual Grant Available | Expiry Date of Agreement   | Province or Territory | Annual Grant Available | Expiry Date of Agreement |
|------------|------------------------|----------------------------|-----------------------|------------------------|--------------------------|
|            | \$                     |                            |                       | \$                     |                          |
| Nfld.....  | 5,985                  | No agreement               | Man.....              | 12,860                 | Mar. 31, 1953            |
| P.E.I..... | 1,630                  | Mar. 31, 1952 <sup>1</sup> | Sask.....             | 13,774                 | Dec. 31, 1953            |
| N.S.....   | 10,641                 | Mar. 31, 1953              | Alta.....             | 15,558                 | Mar. 31, 1953            |
| N.B.....   | 8,540                  | Mar. 31, 1953              | B.C.....              | 19,296                 | Mar. 31, 1953            |
| Que.....   | 67,163                 | No agreement               | N.W.T.....            | 265                    | Mar. 31, 1953            |
| Ont.....   | 76,136                 | Mar. 31, 1953              | Yukon.....            | 151                    | No agreement             |

<sup>1</sup> Renewal in process.

The Physical Fitness Division of the Department of National Health and Welfare acts as a clearing-house among the provinces for the latest

information on fitness, recreation, community centres, physical education, athletics, sports and games, theatre arts and related activities, and also as a liaison office with national associations and with organizations in other countries. The National Council, established under the Act as an executive body, has sponsored and initiated a number of projects.

**Unemployment Insurance.**—A national system of unemployment insurance, administered by the Unemployment Insurance Commission, has been in operation since 1941. This service is dealt with on p. 238.

### **Provincial Welfare Services**

The care and protection of neglected, dependent and delinquent children, care of the aged, social assistance or relief, and other special programs are governed by provincial legislation, although in many areas responsibility for services rests with municipal or voluntary organizations. Provincial Departments of Welfare are taking increasing responsibility for the co-ordination and supervision of welfare services. While the programs and the methods of financing vary considerably, most provinces share the costs of some or all of the municipal services in organized areas and assume the total cost in unorganized territories.

**Mothers' Allowances.**—All provinces enacted legislation between 1916 and 1949 providing allowances to certain categories of needy mothers with dependent children under the age of 16 years. When the child is physically or mentally incapacitated, or attending school, the age limit may be extended in some provinces. "Needy mothers" include widows, foster mothers and wives whose husbands are mentally incapacitated. In some provinces, they include also deserted, divorced, legally separated and unmarried mothers and, in most provinces, those whose husbands are physically incapacitated.

Eligibility requirements vary by province and include a means test, one to five years residence, Canadian or British citizenship (in six instances) and,

A professional photographer gives instructions to members of the camera club at Variety Village, a Toronto residential vocational training school for crippled boys.







*The Victorian Order of Nurses for Canada conducts child welfare conferences in 65 branches across Canada. Here mothers bring their infant and pre-school children for health supervision and information.*



*The Order of St. John in Canada has hundreds of local centres throughout the country. Its main work is to teach first-aid, home nursing and kindred subjects and to provide trained and organized assistance in time of disaster or national emergency.*

in some cases, the mother must be of good moral character. Total costs of the program are paid from provincial treasury funds, except in Alberta where a small portion of the allowance is charged to the municipality of residence.

The maximum allowance for a mother and one child varies from \$25 a month in Newfoundland and Prince Edward Island to \$60 a month in British Columbia, although the actual amount paid depends on the circumstances of the individual applicant. An additional amount is paid for each subsequent child and, in most provinces, for a disabled father living at home. In provinces which have set a maximum allowance for a family, this varies from \$50 in Newfoundland and Prince Edward Island to \$150 in Manitoba. Where special need is apparent, supplementary allowances are usually available.

**Workmen's Compensation.**—For accidents occurring in the course of employment, compensation is payable to workers or, in fatal cases, to their dependants in accordance with the law of each province. The cost of compensation and medical aid is borne by employers through a collective liability scheme administered by the province.

Monthly pensions at a fixed rate are paid to widows and children. Injured workmen receive two-thirds of their earnings (three-quarters in Ontario and Saskatchewan) during total disablement. For partial disablement, the benefits are related to earning capacity before and after the accident. In determining compensation benefits, the maximum amount of annual earnings taken into account is \$2,500 in Prince Edward Island; Nova Scotia, Quebec, Alberta and British Columbia; \$3,000 in Newfoundland, New Brunswick, Manitoba and Saskatchewan; and \$4,000 in Ontario.

## **Other Welfare Services**

Many voluntary organizations are in existence whose efforts are directed to social welfare. The Canadian Welfare Council, a national association of public and private agencies, provides a means of co-operative planning and action by serving as a link between voluntary agencies and between public and voluntary agencies. Specialized organizations, such as the Canadian National Institute for the Blind, which functions in every field of welfare for the blind, and the Canadian Council of the Blind, occupy somewhat similar roles in their particular fields. In areas where they have been set up, welfare councils co-ordinate and encourage local activities and community chests centralize financial campaigns. The work of the Young Men's Christian Association, the Young Women's Christian Association, the Catholic Youth Organization and the Young Men's Hebrew Association, the Boy Scouts, Girl Guides and similar youth organizations in what may be described as preventive rather than curative services cannot be overlooked. Most of the activities of these organizations are not susceptible to statistical measurement. The Canadian Red Cross Society, the Victorian Order of Nurses, and the Order of St. John also perform many welfare services, though they are more properly designated as public health organizations.

## **• Veterans Affairs**

The extensive legislation now administered by the Department of Veterans Affairs has been gradually developed since 1916, when a pressing need for adequate compensation for war veterans or their dependants inspired

Parliament to deal systematically by committee with a task for which there was no precedent. Pensions, treatment, training and post-war care were considered for those of the half-million veterans in need of them. Precedents accumulated and became law. In 1918 a government department was set up to administer the legislation. The administrative experience gained in this department and the deliberations of Parliament, whose special veterans committees had investigated and recommended important measures since 1916, culminated in recent years in the Veterans Charter.

**The Veterans Charter.**—In 1944 the Department of Veterans Affairs was constituted by Act of Parliament to administer the Charter which is in reality an immense social and economic experiment while at the same time fulfilling the obligations nationally assumed to the bereaved, the casualties and their dependants. Fifty-four thousand veterans received university training after discharge, with allowances and free medical treatment; over 85,000 received assistance in vocational training with similar allowances and treatment; 56,000 benefited under the Veterans' Land Act; out-of-work allowances were paid to 172,000 veterans and awaiting returns allowances to 62,000 veterans in business—this in addition to gratuities, re-establishment credits and clothing allowances provided and free medical treatment for one year after discharge.

The Charter enabled 1,000,000 ex-service men and women from World War II to be re-established in civilian life without disturbing the national economy. For this, the Department of Veterans Affairs had the co-operation of 700 citizens' committees scattered throughout Canada whose members gave voluntary assistance in rehabilitating veterans locally. The organization of the Department is based on regional administration which co-ordinates the work of 18 Districts throughout Canada.

The legislation included in the Veterans Charter has been made applicable, with necessary modifications, to veterans of the fighting in Korea. Generally speaking, the period of absence from the continent of North America to participate in operations undertaken by the United Nations to restore peace in the Republic of Korea is the period equivalent to service in World War II for the purpose of qualifying for benefits under the Charter.

**Treatment Services.**—Medical and dental treatment was provided for 1,000,000 veterans after discharge. The policy of giving veterans the most modern treatment possible has involved close association with the universities and the placing of D.V.A. hospitals in the category of teaching hospitals. Clinical investigation has been developed to a high degree and an intensive program of medical research is conducted.

Nineteen institutions across Canada are administered by the Department, ranging from active treatment institutions to health and occupational centres and veterans' homes. Recently certain of the health and occupational centres and veterans' homes have been integrated with parent hospitals for efficiency in administration. Ten thousand patients can be accommodated in these institutions and, while the majority are entitled to treatment, it is possible for veterans without eligibility to be admitted for care on a pre-payment basis. Domiciliary care is given to veterans requiring shelter, food and surveillance, those physically handicapped, senile or mentally confused, and the bedfast.



**Welfare Services.**—Until 1948, veterans welfare services chiefly concerned rehabilitation proper and the administration of benefits such as training, out-of-work and awaiting-returns allowances and re-establishment credit. Rehabilitation measures had assisted the process of the ex-serviceman's transition from a position of dependence to one of independence, but problem cases and welfare of the older veteran remained. It was found that continuous consulting, guidance and assistance were needed for veterans who could not make a successful adjustment without additional help. Welfare officers were therefore appointed to deal personally with such problems and those of pensioners, orphans, recipients of war veterans allowances and other wards of the Department receiving financial aid. Special attention is given to the training and placement of disabled veterans.

**Business and Professional Loans.**—Veterans are assisted, under the Business and Professional Loans Act, 1945, to set up small businesses. The method of operation calls for a government guarantee to any chartered bank granting a loan to a veteran. The veteran is expected to establish to the satisfaction of the bank the soundness of his proposed venture and the adequacy of his experience to make it a success.

*Many veterans have become established in the commercial fishing business with financial assistance from the Federal Government. This fisherman-veteran is salting down codfish which he has caught, cleaned and filleted.*





*A P.F.R.A. engineer inspecting a flume carrying water for the irrigation of a Veterans' Land Act project in British Columbia.*

**War Veterans Allowance.**—Veterans prematurely aged from stress of war are provided for under the War Veterans Allowance Act 1930. This legislation provides set allowances for married and single veterans which have proved invaluable in assisting unemployables suffering from disabilities of an intangible character. In all, more than 125,000 cases have been dealt with under the Act and more than 70,000 cases approved. At the end of March 1952, almost 39,000 veterans and widows were in receipt of this allowance and the cost to the country since its inception in 1930 amounted to \$167,000,000.

**Land Settlement.**—The Veterans' Land Act represents a public investment of \$270,000,000 in about 53,000 properties on which veterans of World War II are settled. Half of these are full-time farms. The Soldier Settlement Act, which applies to veterans of World War I, is also administered by the Veterans' Land Act Administration.

An intensive program of farm practice is conducted by trained agriculturists and horticulturists who advise the settlers in the field on improved techniques. Veterans are encouraged to build their own homes. Over 80 p.c. of the 2,100 houses constructed in 1952 under the home-building program were built by the veterans themselves. Re-establishment credits have proved an incentive to home-owning. Credits amounting to \$34,000,000 were used for the purchase of homes and \$167,000,000 for the purchase of furniture and household goods.

**War Disability or Death Pensions.**—The Canadian Pension Commission is the body responsible for the adjudication and award of all compensation for disability or death incurred on, attributable to or aggravated by war service. In addition, it is responsible for dealing with claims for disability or death arising out of service in peacetime. A pensioner receives additional pension on behalf of his wife and children and a pensioned widow also receives pension for her children. By the 1951 amendments to the Pension Act, the



award for a widow's children is paid at "orphan rates", which are double ordinary rates.

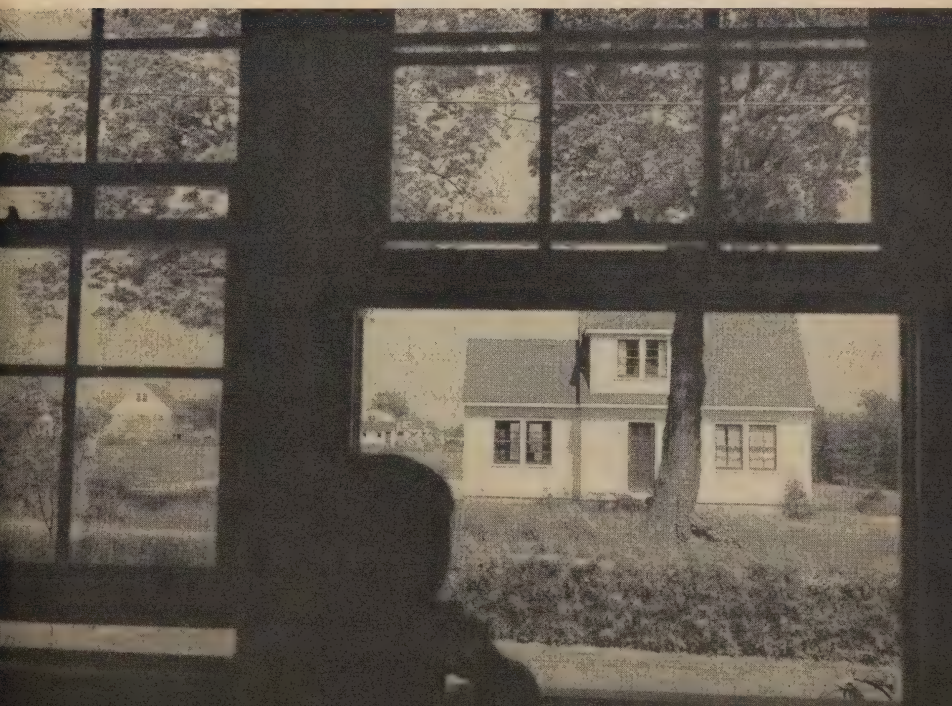
To use an illustration, the pension paid for a total disability to a former member of the Forces with a wife and two or more children amounts to: a personal pension of \$125 monthly, an additional \$45 for his wife, \$20 for the first child, \$15 for the second, and \$12 for each additional child. A 10-p.c. pensioner would receive 10 p.c. of these amounts. If he is helpless and in need of attendance, he is granted a Helplessness Allowance, which might vary from a minimum of \$480 to a maximum of \$1,400 per annum depending on the amount of attendance required. In the case of the blind, where the attendance required is not constant, the helplessness award is \$960 per annum.

A pensioned widow receives \$100 per month, with \$40 for the first child, \$30 for the second and \$24 for each additional child. If she remarries, she is granted a final payment of one year's pension, and pension ordinarily continues for her children. Pension for a boy expires when he reaches the age of 16, and for a girl 17. However, it may be continued to the age of 21 if the child is making satisfactory progress in a course of education approved by the Commission. The Pension Commission now issues about 200,000 cheques each month and the annual pension bill is about \$125,000,000.

The Civilian War Pensions and Allowances Act makes provision for merchant seamen, auxiliary services personnel, the Corps of Canadian Fire-fighters, special constables with the Royal Canadian Mounted Police, overseas welfare workers and members of other groups that contributed to Canada's effort in the Second World War.

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*A Veteran's Land Act subdivision from the livingroom window of one of the houses. This subdivision is made up of half-acre properties, most of them well landscaped and productive.*







*Education provided by secondary schools is varied and complex, endeavouring to equip one group of students with the necessary skills to earn a living after high-school graduation and to prepare another group for higher education and at the same time develop in all of them a sense of responsibility and good citizenship.*

# Education

## Scientific Research

### • Education

**P**UBLIC education in Canada, except for that of the native Indians, is under the jurisdiction of the provinces. While each provincial system varies from the others in particulars, the general plan is the same for all except Quebec where there are two systems, the Roman Catholic which has developed in the French tradition, and the Protestant which is of the English tradition of the other provinces. The public school systems of Ontario, Saskatchewan and Alberta include separate schools, mostly Roman Catholic. In Newfoundland the schools are mostly denominational—Church of England, Roman Catholic, United Church, Salvation Army and Seventh Day Adventist.

In each province, except Quebec, education is administered by a separate department of government headed by a Minister of Education who, as a member of the Ministry, is responsible to the Legislative Assembly and to the people. In Quebec education comes under the jurisdiction of the Provincial Secretary. The Minister, through his department, is responsible for the administration and enforcement of all statutes and regulations concerned with the schools, including training and licensing of teachers, provision of courses of study, authorization of textbooks, enforcement of attendance laws and the apportionment of provincial grants to schools. Local administration is in the hands of school boards elected by the ratepayers or, in some cases, appointed by the local municipal council. The local boards hire the teachers and operate the elementary and secondary schools.

All teacher-training schools for elementary teachers, except those in Quebec, are operated by the provincial governments. Most provinces, too, operate schools for the blind and the deaf as well as certain special schools at secondary or junior college level, such as technical institutes, schools of fisheries, agriculture, forestry, mining, etc.

The Government of Canada is responsible for the education of Indians and Eskimos. Within the provinces, it operates a considerable number of day schools for Indian children and assists in the operation of residential schools conducted by religious denominations. Day schools are also provided for white, Indian and Eskimo children in the Yukon and Northwest Territories and assistance is given to mission schools in these areas. Grants are paid to a few public schools in the larger settlements of the Territories.

**Elementary and Secondary Education.**—In the systems of the English tradition the elementary school includes the first eight grades. Children commonly begin at age six or seven and complete the elementary grades at age 13 to 15. Subjects of study include reading, arithmetic, writing, social studies and health, together with arts and crafts, home economics, music, etc.

The secondary school course extends over four years, from grades IX to XII (five years to grade XIII in British Columbia and Ontario).



*In the first year of school the main objective is to teach children to get along happily together and to work and play under guidance.*

High-school graduation or junior matriculation is at the end of grade XI or XII. Grade XII (or XIII) is equivalent to first year university, but standing in at least some subjects of this grade is required for entrance to some universities. In some provinces grades VII to IX are designated intermediate or junior high and given a broadened curriculum.

A pupil entering secondary school may follow an academic course—usually composed of literature, history, mathematics, science and a foreign language—leading to the university, the teacher-training or the nurse-training school, or he may take an industrial, commercial or agricultural course leading to a relative occupation.

Under the Roman Catholic system of Quebec seven grades comprise the primary division. Thereafter a boy may enter a classical college for an eight-year course leading to university, or pass through any one of five sections of the complementary and superior divisions—general, scientific, industrial, commercial, agricultural. The first three are five-year courses, the others shorter. The scientific and commercial courses lead to the professional schools and the general courses to teacher-training schools; the other courses are terminal.

At the end of the primary division a girl has the choice of four sections: (1) a general five-year course leading to teacher-training school; (2) a three-year household science course; (3) a four-year commercial course; or (4) a two-year domestic arts course; or she may enter a classical college leading to university.

Elementary school enrolment is now showing the effects of the higher birth rates of the war and early post-war years. Grades above Grade VIII will begin to feel these effects between 1953 and 1955 and by 1965 secondary-school enrolment may be close to double the present total. Other factors are also operating to increase enrolment, including the introduction of family allowances in 1945 which has been instrumental in improving attendance and in keeping pupils in school to the legal age limit; increased emphasis on the holding power of schools; increased transportation facilities at public expense;



the building of dormitories in some provinces; the larger unit of administration; the establishment of junior high schools and composite schools; and the wave of post-war immigration. The average daily attendance in publicly controlled elementary and secondary schools of the ten provinces was 2,096,666 in the academic year 1949-50, compared with 2,016,305 in 1948-49 and 1,804,294 in 1944-45. The teaching staff comprised 22,761 men and 62,531 women, a total of 85,292.

**Higher Education.**—The enrolment of undergraduate and post-graduate students in full-time session in Canadian universities and colleges in the academic year 1950-51 was 66,680. The decrease from the enrolment of 74,133 in the previous year was almost all accounted for by a drop in the number of war-veteran students from 14,139 to 6,969. Graduate students represented about 7 p.c. of the student body in each year.

According to the compilations of the Committee of Graduate Studies of the National Conference of Canadian universities, in 1950-51 the universities conferred 14,502 bachelor and first professional degrees, 1,602 masterships and licences and 209 earned doctorates. The doctorates awarded for advanced study and research were distributed, by fields of study, as follows: pure and applied science 124; humanities 37; social sciences 19; professional specializations 18; and unclassified 11. Of the 1,315 master degrees, 411 were awarded in the sciences; advanced professional courses accounted for 275 awards, nearly one-half of them in engineering; the social sciences attracted 245 students and the humanities 197; 187 awards were not classified.

The academic staffs in 1950-51, exclusive of affiliated preparatory schools, comprised 6,235 full-time and 3,931 part-time teachers and instructors.



*A high-school history class in session.*

## Summary Statistics of Education, Academic Year 1949-50

(Includes Newfoundland)

| Type of School or Course                        | Institu-<br>tions | Pupils           | Teachers           | Expendi-<br>tures   |
|-------------------------------------------------|-------------------|------------------|--------------------|---------------------|
|                                                 | No.               | No.              | No.                | \$'000              |
| Publicly Controlled Schools—                    |                   |                  |                    |                     |
| Ordinary and technical day schools.....         | 31,133            | 2,321,289        | 85,292             | 306,649             |
| Evening classes.....                            | ...               | 115,623          | ...                | 1,107 <sup>1</sup>  |
| Correspondence courses.....                     | 10 <sup>2</sup>   | 24,282           | ...                | 890                 |
| Special schools (blind and deaf).....           | 12                | 1,962            | 224                | 1,843               |
| Teacher-training Schools—                       |                   |                  |                    |                     |
| Full-time course.....                           | 112               | 9,968            | 774                | 3,860               |
| Accelerated course.....                         | ...               | 1,458            | ...                | ...                 |
| Privately Controlled Schools—                   |                   |                  |                    |                     |
| Ordinary academic schools.....                  | 828               | 100,253          | 6,455              | 16,373              |
| Business Training Schools—                      |                   |                  |                    |                     |
| Day classes.....                                | 243               | 19,882           | 911                | 2,893               |
| Evening classes.....                            | ...               | 15,920           | ...                | ...                 |
| Indian schools and education in the Territories | 425               | 25,142           | 708                | 7,584               |
| Universities and Colleges—                      |                   |                  |                    |                     |
| Preparatory courses.....                        | ...               | 25,143           | 1,846              | ...                 |
| Courses of university standard.....             | 232               | 99,007           | 9,373 <sup>3</sup> | 45,600              |
| Other courses.....                              | ...               | 31,482           | ...                | ...                 |
| Expenditures Not Included Above—                |                   |                  |                    |                     |
| Provincial Governments.....                     | ...               | ...              | ...                | 47,116 <sup>4</sup> |
| Federal Government.....                         | ...               | ...              | ...                | 14,141 <sup>5</sup> |
| <b>Totals.....</b>                              | <b>32,985</b>     | <b>2,791,411</b> | <b>105,583</b>     | <b>448,056</b>      |

<sup>1</sup> British Columbia and Ontario only; included with day schools in other provinces.

<sup>2</sup> Not included in the total; correspondence courses are provided by the provincial departments of education.

<sup>3</sup> Includes 4,127 part-time instructors.

<sup>4</sup> Total gross expenditure by the provincial governments was \$182,560,000, including grants to school boards amounting to \$121,487,000, of which \$2,642,000 was provided by the Federal Government.

<sup>5</sup> Includes \$5,984,000 living allowances paid to student veterans. Total expenditure on education by the Federal Government was \$24,108,000, of which \$9,209,000 was spent on the education of veterans.

**Financing Education.**—The general principles of financing educational institutions are the same in all provinces though there are minor variations. The publicly controlled elementary and secondary schools are built and operated by the school boards which receive their income through direct taxation, provincial grants, and other sources.

An understanding of municipal organization is essential to an understanding of taxation for school purposes. Nova Scotia and New Brunswick alone are completely organized municipally, the other provinces having large unorganized areas, mostly sparsely settled. In the organized areas of most provinces, only the annually elected councils of the local municipalities have power to assess property and levy taxes: in Prince Edward Island, Nova Scotia and Quebec a school board also may levy taxes. In the unorganized areas of Quebec, Ontario and Saskatchewan, school boards may levy taxes while in Manitoba, Alberta and British Columbia a provincial assessor evaluates the property and levies taxes. In those areas where the municipal council has the sole right to levy taxes, that council is, in most cases, obliged to accept the budget submitted by the school board, although it may give some advice regarding the limitation of expenditures.

Assessment for school purposes is on the valuation of (1) land, (2) buildings or, in some provinces, improvements, (3) personal property in Nova Scotia and Manitoba, (4) business income in Ontario, Manitoba and Saskatchewan,

*In addition to basic academic training, the student whose aptitude lies in vocational fields has the benefit of courses in preparation for industry, commerce, agriculture or home economics.*

*The home economics courses at secondary school level include dress-making and design, meal preparation and other household arts.*



*Senior pupils taking welding instruction at a technical high school.*



*Most secondary schools provide courses in commercial subjects.*





and (5) mines income in Ontario. Crown lands, educational institutions, churches, cemeteries and the property of agricultural and horticultural societies are usually exempt from taxation. Various methods, such as provincial assessments, county assessments and special grants, are used to overcome the variations caused by the multiplicity of local assessments.

The tendency has been for the provinces to assume, through the payment of grants, an increasing share of the cost of elementary and secondary education. Most grants are paid to the school boards but in some cases they are also paid to teachers. "Basic" grants are based on teachers' salaries, certificates and experience, approved costs, average daily attendance, number of classrooms or a stated minimum cost. "Special" grants are for such items as transportation, auxiliary classes, music, arts and crafts, building costs, equipment, libraries, assistance to poor districts, home economics, shop work, night schools, etc. Special grants loom largest in Quebec where there is marked emphasis on training for home industries, arts and crafts, etc.

Except in Quebec, fees are limited to students in secondary grades. They are only nominal and constitute a very minor portion of the income of school boards. In Quebec fees may be charged for both elementary and secondary education and may account for 10 p.c. of the income of the boards. Other sources of income, including rent of buildings, income from the operation of dormitories and cafeterias, concerts, donations from local organizations, etc., account for from 3 to 5 p.c. of the total revenue.

In most provinces school boards may borrow on notes for current purposes, though amounts, terms and the purpose of the loan may be limited by law. Security for such loans may be provincial grants or taxes. Where such loans are not permitted, boards may seek an advance from the municipal council. Borrowing for building purposes is usually done by the issue of debentures by the municipality on behalf of the school board, in most cases approved and in some cases guaranteed by the provincial government. Sinking funds are permitted in some provinces but not in others.

Private schools are supported by fees, donations and endowments and some in Quebec receive provincial grants. In Ontario and the Maritimes, teacher-training schools for elementary teachers are free but in Quebec and the western provinces fees are charged. Certain teacher-training schools in Quebec operated by religious orders receive provincial grants.

Fees account for 38 p.c. of the income of universities and colleges, and provincial and federal grants for 42 p.c. The remainder comes from investments and other sources. In the case of the provincial universities of Ontario, Manitoba, Saskatchewan, Alberta and British Columbia, the provinces pay, subject to limitations, the difference between expenditure and income. Some provinces provide the university buildings. The Federal Government makes large annual grants to the provinces to encourage vocational education, including youth-training, apprenticeship and technical education, provides grants for research, scholarships and university education and pays for the education of veterans.

In 1952 a new system of federal grants to the universities was inaugurated. For many years federal financial assistance has been given to the universities or to university scholars and research workers for specific purposes considered national in scope. The new grants represent an annual contribution to university education based on the population of each province.

*Ph.D. candidate in aerophysics at the Institute of Aerophysics, University of Toronto, lectures to a seminar of students, all of whom are taking post-graduate degrees.*



The grants for 1951-52 were authorized by Order in Council (P.C. 123, Jan. 9, 1952) to provide a preliminary experimental period before the regulations were placed on the Statute Books. The amount distributed was about \$7,000,000, approximately 50 cents per capita for each province. The provincial quotas were divided among the universities and eligible colleges in the province on the basis of the number of students in full-time attendance pursuing courses of study leading to recognized degrees or equivalent post-graduate diplomas. In the years 1941 to 1950, the current expenditures of the larger universities and colleges, representing more than 80 p.c. of the total enrolment, increased from \$16,000,000 to \$40,700,000. In 1950, the Federal Government paid to the universities more than \$2,000,000 for the education of war veterans. Including this amount, the proportion of university expenditure met by all government grants was 42 p.c. In 1941, prior to the inauguration of the veterans' training plan, provincial government grants alone represented 41 p.c. of current expenditure. Since the veterans' training allowance will be completed in the near future, the new federal grants are calculated to compensate for this withdrawal and provide some measure of expansion and improvement in the facilities and courses of higher education.

**Adult Education.**—Adult education, both formal and informal, is becoming increasingly necessary to the Canadian way of life. Casual learning gleaned from newspapers and magazines, the cinema, radio and television programs, has been growing decade by decade. Formal education authorities have been interested in promoting community centres, fostering the arts, encouraging good citizenship and developing leadership.

In rural areas educational undertakings include: short courses given by itinerant instructors in home economics or agriculture; community groups formed for the discussion of documentary films or radio programs; lighted school programs; and folk schools which provide opportunity for young folks to share experiences in community living. As rural communities are more homogeneous in interests and organization, providing adequate educational opportunities for all is easier than in urban areas. Urban organization, on the other hand, lends itself to greater variety in academic and vocational classes at the high school and college levels with a wide variety of hobby and recreational courses.

Services and aids provided directly or indirectly by the Federal Government include: documentary films produced by the National Film Board; educational broadcasts prepared by the CBC studios, or by provincial authorities, or co-operatively; art displays and prints from the National Gallery; and pamphlets and booklets on a wide variety of subjects. Services provided by the provincial governments vary from grants for evening classes to sponsored or assisted programs in formal education, recreation, fitness, health or youth programs, and more sporadic contributions of the departments of agriculture, forestry, fisheries, etc. Teaching aids are made available free or at nominal cost.

A survey of adult education conducted by the D.B.S. for 1950-51 showed that eight of the ten provincial Departments of Education had Divisions of Adult Education employing in all 192 full-time and 622 part-time workers. Four of these Divisions prepared booklets, three prepared films, three exhibits, four radio broadcasts, and one lectures; a number of them conducted a wide variety of activities enrolling 37,139 persons in classes, some of them extending over months.

Thirteen institutions of higher learning prepared books and pamphlets, lesson outlines and study courses, and radio broadcasts and transcriptions. Nine prepared films, filmstrips or slides, and seven prepared travelling or other exhibits. Counting short courses, evening courses, summer courses, refresher courses, workshops, institutes, conferences, etc., one university conducted 2,910 meetings enrolling 7,172 people while three others had 2,530, 1,655 and 1,305 meetings and enrolled 1,633, 3,921 and 670, respectively. This was in addition to courses leading to degrees.

The Canadian Association for Adult Education, an independent voluntary organization, co-ordinates the work of the major adult educational agencies in Canada, provides ideas and motivation, and conducts research. La Société canadienne d'enseignement postsecondaire performs similar functions for French-speaking Canadians.

## • *Scientific Research*

The National Research Council is the central organization for research on the national level. At the same time research activities are conducted by a number of Federal Government Departments, notably Agriculture, Mines and Technical Surveys and Fisheries. These Departments have trained permanent scientific staffs for investigation and research in their own fields such as soil problems, crops, breeding and testing of animals, processing and marketing, extractive and physical metallurgy, silvicultural and forest products, hydrography, ocean and mollusk fisheries, etc. The Board of Grain Commissioners also maintains laboratories for research in milling, baking and malting, and the Dominion Observatories carry out research in the fields of solar physics, astrophysics, seismology, terrestrial magnetism, gravity, and so on.

Research in specialized fields is also carried on by other levels of government and in recent years it has become common practice and indeed almost a necessity for large industrial concerns to establish their own research facilities. The universities are also active in scientific research and assistance is given in certain fields by a number of research foundations including the Ontario Research Foundation at Toronto which provides aid to the public and to



industry in matters of a technological character; the Banting Research Foundation which aids medical research throughout Canada; and the Rockefeller Foundation which assists in the furtherance of scientific research in medical science, natural science, social science and public health.

Liaison among scientific interests is maintained through meetings of scientific and engineering societies and various specialist gatherings and continuity of effort is often secured through the appointment of committees by such organizations as the National Research Council, the Defence Research Board and the Fisheries Research Board.

*The building that houses the modern laboratories of the Aluminum Company of Canada at Kingston, Ont.*

*Small strips of aluminum painted in various colours are exposed to the weather on the roof of the building and the action of the elements is observed for further research.*





*Provincial Government employee taking an organism count in lake-water at Lake Opeongo, Algonquin Park, Ont.*

An Advisory Panel of Scientific Policy, consisting of senior research officials, keeps in close touch with all research activities carried on under the auspices of the Government of Canada. Each of these agencies in turn maintains working relations with provincial and other research institutions and the machinery of scientific and industrial research throughout Canada is thus integrated into a smoothly working mechanism of high efficiency.

**National Research Council.**—The National Research Council is a peculiar and rather complex organization which has no exact counterpart. It was founded during World War I to advise the Government on certain critical materials. At the end of the War it was retained in an advisory capacity. It recommended to the Government that the best method of building up research was to start at the foundation—the universities. The Research Council, therefore, became a body of the “foundation” type, awarding grants and scholarships for research. The operation of laboratories started in the early 1930's, when the Council ventured into research aimed at helping secondary industry, primary industry being already attended to by existing government departments.

The Council is not a government department, its employees are not civil servants, and its governing body is composed almost entirely of people outside the government service. It is thus a combination of a fund-granting foundation type of organization and an operating organization running large laboratories—a combination peculiarly fitted to a country in which research is being built up and in which the performance of research is no more important than its encouragement.

Industrial research, both in extent and in direction, must be closely connected with developments in the economic situation. In a pioneer country it will lean strongly to the primary industries—agriculture, forestry and mining—and, as the country develops, interest in secondary industries will increase. This is the pattern that has been followed in Canada.

Since World War II there has been a strong swing towards Canadian self-sufficiency in research. Establishment of new industries and the expansion of existing plants have given rise to a sizable increase in the amount of applied research being carried on by Canadian firms. This development has made it possible for the National Research Council to broaden its field of work to include fundamental studies, especially those having a bearing on problems related to industrial research projects.

Practical research of special interest to industry is in progress in the laboratories on a wide variety of problems. Some of the more important fields of work relate to studies on buildings and foundations; aeronautical investigations of use to the aviation industry as well as to the Royal Canadian Air Force; radar studies of special interest to the Department of National Defence;

*Experiment on the photometric properties of snow being carried out by the photometry and colorimetry group of the Division of Physics, National Research Council.*



*Measuring the thermal efficiency of clothing, also in the Physics Division.*





research relating to moulds and bacteria which cause rot and decay by attacking the cellulose in textiles, wood and similar materials; chemical investigations on the mode of formation and structure of alkaloids in plants; and fundamental studies on the principles involved in the flow rates of fluids, which may lead to a better understanding of many industrial process problems.

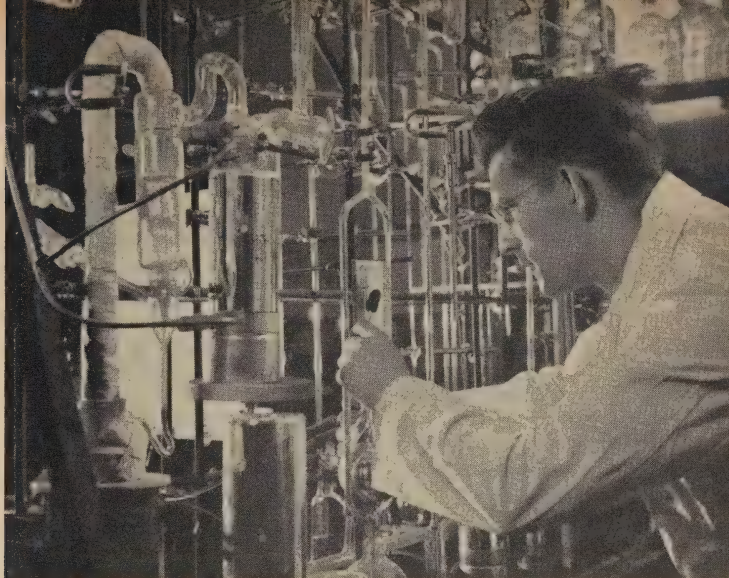
Industrial projects in applied chemistry also cover a wide range. Research in rubber is carried on in close co-operation with the industry and with Polymer Corporation Limited, a Crown company producing synthetic rubbers. Paint studies, corrosion of metals and the investigation of textiles with special reference to laundering and dry-cleaning problems are all being pursued intensively. Pilot-plant operations are proceeding on the industrial application of a process developed in the laboratories which may prove more efficient and less expensive than existing commercial methods of making various chemical products from certain constituents of natural gas.

In pure chemistry, one interesting study among many relates to conditions at the "critical point". The critical point is the temperature and pressure at which the liquid and gaseous forms of a substance become indistinguishable. Study of substances at temperatures and pressures near their critical points provides useful information on the way gases and liquids change into one another. Until about 15 years ago a theory put forward by van der Waals in 1873 concerning the critical point was generally accepted as being qualitatively correct. Around 1935 several investigators began to work towards the establishment of a more accurate and quantitative theory and their work gave rise to a new interpretation which aroused wide interest among scientists. Maass of McGill University, who had long been interested in this subject, made some experimental measurements which tended to confirm the newer theory and about a year ago the Division of Pure Chemistry undertook to clear up some points on which there was not yet full agreement. Since then, National Research Council scientists have studied pressure, temperature and volume characteristics of certain substances in the critical region as precisely as possible. Employing a relatively new technique and using equipment designed and developed in collaboration with the Division of Physics, they have measured the velocity and absorption of sound waves in gases near the critical point. Results of these studies have been reported in scientific literature and have been presented at a recent conference at Paris.

The National Research Council had a staff of 2,205 as at October 1952. About half of the regular staff positions in the Division of Pure Chemistry and certain positions in other Divisions of the laboratories are occupied by appointees under the post-doctoral fellowship plan inaugurated in 1948. Some 150 research scientists from 56 universities and 21 countries have worked in Ottawa under this arrangement. Appointments are for one year and may be renewed only once. This provides a flow of new men through the laboratories and produces a sort of university atmosphere which keeps the Council young. Moreover, because of their varied sources of training, these post-doctorate fellows have a most stimulating effect on the conduct and output of research in the National Research Laboratories.

Activities of the Council also include the making of grants-in-aid for research projects to be carried on in the universities, and the award of scholarships for graduate training. Two regional laboratories are in operation: one at Saskatoon for studies on methods of utilizing farm surplus and waste

*A post-doctorate fellow in Pure Chemistry checking a vacuum gauge in the course of research on the mercury photosensitized reactions of benzene at the National Research Council.*



products; the other at Halifax for the investigation of problems relating to seaweed and other matters concerned with the industrial development of natural resources in the Maritime Provinces. The Technical Information Service provides scientific and technological information to industrial plants throughout Canada, answering some 400 inquiries each month.

Much additional work going on in the Council's laboratories cannot be described since it is being done either for the Armed Services or under the defence production program or, in certain cases, for private firms in accordance with industrial agreements.

**Atomic Energy Research Activities, 1951-52.**—Canada's main atomic energy establishment, which is situated at Chalk River, Ont., had a highly successful year. The two heavy water reactors there were in continuous operation, the larger one (NRX) at a somewhat increased power. A start was also made on the construction of a third heavy water reactor. This will be larger and many times more powerful than NRX and will provide additional facilities for important fundamental investigations, for production of plutonium and radioisotopes, and for atomic power research.

Because of the increasing industrial aspects of the Chalk River establishment, responsibility for its operation was transferred on Apr. 1, 1952, from the National Research Council to a newly formed Crown company, Atomic Energy of Canada Limited, in which a Commercial Products Division was later established to market isotopes produced at Chalk River. Nearly 1,000 shipments of 70 different radioisotopes were made to research establishments, industries and hospitals, both in Canada and abroad, in the year ended Mar. 31, 1952. The most important shipments were two highly active Cobalt<sup>60</sup> sources which were delivered to two Canadian hospitals for the treatment of cancer. The demand for radioactive cobalt for such therapy units has exceeded the production capacity of the NRX reactor.

Many other Canadian scientific establishments also carried out atomic energy investigations during the year and have made important contributions to this new field of science.





## Social and Cultural Relationships

CANADA's general economic prosperity of recent years has been reflected in a growing sense of well-being in all fields of cultural and artistic activity, and a lively public interest in all forms of art is now found throughout the country. During the past two years added stimulation has come from the *Report of the Royal Commission on National Development in the Arts, Letters and Sciences*, a historic document which presented the first national inventory of Canada's cultural resources and indicated many forms of potential growth and improvement. Also, the extraordinary amount of information concerning cultural developments in other countries which has reached Canada recently through periodical literature and radio has served to stir Canadian interest and imagination.

Although vigorous artistic activity, mainly on a local or regional basis, may be noted in every part of the country, the development of national consciousness in the arts is still weak. The paucity of national art literature is an unfavourable feature frequently causing comment. However, Canadians are fully aware of the needed improvement, and people who are concerned with literature, music, painting, ballet and the theatre are giving considerable thought to the problem. The energy and enthusiasm of regional artistic development, which is noted in virtually every city, town and village, is gradually forcing the establishment of national cultural agencies such as the Dominion Drama Festival, the National Ballet Festival and the Canadian Musical Festivals-organizations.

The growth of interest in the arts and the great increase of public support for cultural activities has been so widespread during the past two years that it is difficult to describe the situation briefly. All that can be attempted here is reference to representative examples of what is happening throughout the country.

### Creative Writing

Canadian writers have recently emerged from the stage in which their themes were restricted to the local situation, and are now establishing themselves firmly as original thinkers and competent literary craftsmen in both English and French. Many Canadian works, both fiction and non-fiction, have received praise from foreign critics in the post-war years, and translations into foreign languages are now frequent. Novelists have gained particular approval with their strong treatment of universal themes concerned with mankind everywhere. Scholarly writing, biographical works and specialized reporting by Canadians have been receiving unusual attention and approval recently. The number of books being written by Canadians and published in Canada has increased manifold since World War II, and the craft of writing is now a profitable livelihood for an increasing number of men and women. The Canadian Authors Association is one of the few substantial and successful cultural organizations operating on a national scale. It is in its thirtieth

year and, together with its sister organization, La Société des Écrivains Canadiens, is rendering a successful professional service to its members. Of notable importance is the fact that Canadians are becoming more interested in the work of native writers, and Canadian books are now not infrequently found on the lists of "books most in demand" at public libraries.

## **Ballet**

The emergence of ballet as one of Canada's most successful box-office attractions is entirely a post-war development, traceable to three main causes. Canadian soldiers, sailors and airmen were introduced to ballet during their stay in the United Kingdom and brought back to Canada an appreciation of the art and a taste for more of it. The visit of the famous English company, the Sadlers Wells Ballet, to the United States and to Canada, with much attendant publicity, whetted the interest of Canadians. And, finally, the use of ballet as a theme and decoration of popular motion-pictures removed the art from the "long-hair" category for millions of movie-goers.

The growth of ballet in Canada in the past several years has been notable; the National Ballet Festival is now an annual event, two professional companies of national stature tour the country, at least 20,000 students are enrolled in ballet schools and ballet shows play to filled theatres in every city. The Winnipeg Ballet Company, a fully professional group, is the senior company in Canada and has been eminently successful both in its home city and on tour. A newer company, formed in Toronto and directed by a former member



*Ballet class at Coste House, Calgary's Allied Arts Centre.*



Scene from "The Enchanted", presented by Ottawa's Saturday Players and winner of two major awards at the 1952 Dominion Drama Festival.

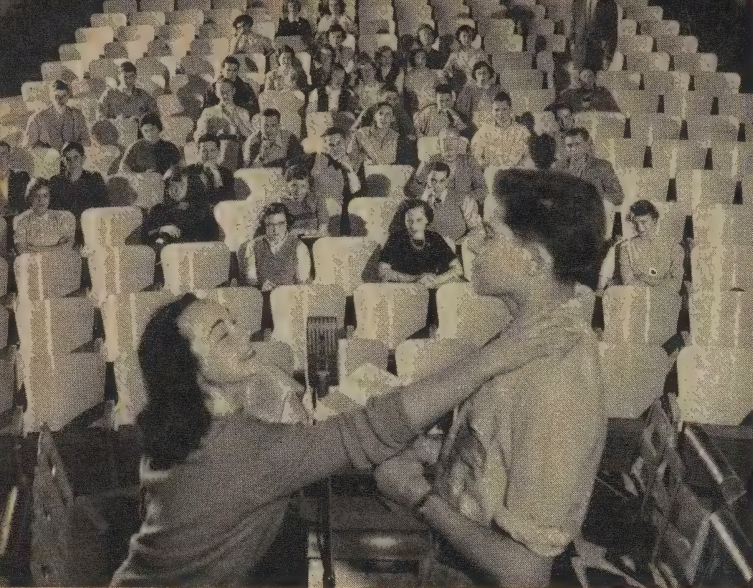
of the Sadler Wells company, is now operating on a professional basis. Styling itself the National Ballet Company of Canada, it has attracted dancers from all parts of the country and won high praise in many Canadian centres where it performed during 1952. Both the Winnipeg Ballet and the National Ballet have extensive tours scheduled for 1953. The fifth annual Canadian Ballet Festival is being held in the national capital in 1953, in which at least fifteen ballet companies from many parts of Canada will participate.

## Drama

Because of its great geographical expanse and few large cities, Canada has never been well served by professional touring theatre companies. The country has, however, developed an exceptionally healthy and successful amateur theatre movement, ramifications of which are found in hundreds of communities throughout the land. This movement reaches an annual peak of excitement with the Dominion Drama Festival, held in a different city each year, when a full week of competitive stage productions are offered by the best "Little Theatre" groups from coast to coast. In 1952 the festival was held in the Maritime Provinces for the first time, at Saint John, N.B.

Of greatest interest, perhaps, in Canada's drama world has been the growth of local professional theatre activity. Summer theatres have increased considerably in the past several years, and it is believed that at least twenty-five such organizations will be playing on a self-sustaining (if not profitable) basis in the summer of 1953. Several travelling theatre groups have proved the feasibility of touring towns and villages in rural areas, particularly in Saskatchewan and Nova Scotia. The Toronto Shakespeare





*Dramatizing a classroom subject in the auditorium of a modern high school.*

Festival, which was inaugurated in 1949, has proved to be a profitable venture and plans are under way to produce Shakespeare, under authentic conditions and with distinguished British actors in the leading parts, at the Ontario city of Stratford, which is on the Avon River.

At Ottawa, Toronto and Vancouver local companies of professional players have been eminently successful in the past three years. The Ottawa group, Canadian Repertory Theatre, has succeeded in firmly establishing itself, playing a regular weekly schedule to well-filled houses. Although its selection of plays has varied widely from heavy drama to mystery thrillers, the three most successful box-office attractions in the past year were "Hamlet", "The Cocktail Party" and "The Lady's Not for Burning", an indication that Canadians are apt to take their drama thoughtfully.

## ***Painting***

A notable increase in public interest in painting has been observed throughout Canada in the past year, and it seems certain that the country is in the early stage of a somewhat remarkable "art awakening". In every urban centre thousands of Canadians have taken to painting as a hobby, and one of the results has been a stimulation of art appreciation and appetite. New art galleries have opened in a number of cities and many new exhibitions and exhibitors have been noted. The great increase in the number of people attending art shows has been a source of gratification to artists, educators and impresarios. A number of factors can be mentioned as having a stimulating effect upon the public's interest and curiosity: impressive art education articles in United States magazines which are widely read in Canada; the new and eye-catching use of paintings in advertising copy; art as a facet of motion-picture production; new art education methods in public schools; and the availability of art lessons for adults at community centres.

# CANADIAN PAINTING



Totem Poles, Gitsegiuklas    Edwin Headley Holgate, R.C.A.



Stormy Weather, Georgian Bay.

Varley, A.R.C.A.





A Northern Hill-Top

J. E. H. MacDonald, R.C.A.



The Beothic at Bache Point, Ellesmere Island

A. Y. Jackson



*The Parliamentary Sculptor at work with stonecutters on Confederation Hall, Centre Block of the Parliament Buildings, Ottawa*



The National Gallery of Canada, recently given more financial encouragement by the Canadian Government, has taken active leadership in providing fine art fare, in several forms, for all parts of Canada. There has been a remarkable increase in the number of art exhibitions on tour in both Eastern and Western Canada, some being the works of groups of Canadian painters and others being selections aimed at showing the art treasures and modern developments of other countries. Art societies are thriving and groups of painters with special interests are working eagerly and vigorously in several cities, notably Montreal, Toronto, Winnipeg and Vancouver, and much of their work is attracting attention by its modernity. The number of Canadian painters travelling abroad for training and experience is very much on the increase, and the Canadian School is showing clear indications of the influence of schools in Europe, the United States and Mexico. Mature Canadian painters, who have established their reputations through the years, are finding a more ready and more profitable market than ever before for their works. The sale of art literature and the showing of art films, both greatly increased in the past two or three years, are further indications of a new peak of public interest in art.

## **Music**

In every city, town and village of Canada there are vigorous organizations devoted to the promotion of music, and this dates back to the earliest times in Canadian history. In the schools of all ten provinces emphasis is placed upon the importance of musical education, appreciation and understanding. Conservatories in all the main cities, and some in smaller university towns, are well attended and competently staffed. In about twenty cities annual music festivals have become events of great interest, and the recently formed Canadian Music Festivals Association is a national body of considerable importance and prestige. Several of the city festivals require a solid week



*Rehearsing the musical background for a dramatic show. This type of work requires the services of very skilled musicians able to work with little rehearsal from rough manuscripts that are subject to many changes.*

of competitions to meet the demands of the community. In Winnipeg, a city which inherits the musical backgrounds of a score of racial groups, more than 20,000 people compete in the festival and ten days of morning, afternoon and evening performances are required.

Public interest in opera in Canada has increased manifold in the past two or three years, possibly due in large measure to the taste developed by radio broadcasts by famous British and United States companies. The School of Opera conducted by the Royal Conservatory of Music of Toronto has attained an assured success in a few short years, and the Canadian Broadcasting Corporation's operatic company has become firmly established as one of the most popular radio groups in Canada. At Ottawa, Montreal, Winnipeg, Vancouver and a number of other cities, local operatic organizations are singing to well-filled houses, while the Nova Scotia experiment of bringing live opera to smaller centres of population throughout the Province has become a definite success.

In at least a dozen Canadian cities symphony orchestras are receiving enthusiastic public support and are rendering valuable service to their communities. The Toronto Symphony Orchestra is scheduled to make a tour of United States cities in 1953, a sure indication that it has achieved musical stature of some importance. Montreal, a city of cultural brilliance, provides symphonic music of top rank, and Winnipeg and Vancouver provide regular symphonic performances over the CBC national radio network. Ottawa is developing a smaller philharmonic orchestra of excellent quality, and is probably providing the nucleus of an eventual national symphony.

In the field of creative music Canadians are gradually making themselves known both at home and abroad. The Canadian League of Composers



entered its third year with a distinguished concert of music by its own members in December 1952. The biographies of 356 men and women were listed in a Catalogue of Canadian Composers issued by the CBC in 1952. In that year, too, there was a notable increase in the publication of musical works by Canadians. New and important outlets of Canadian composition were again provided by the CBC, while encouragement was provided continuously by the Composers, Authors and Publishers Association of Canada Limited and BMI (Canada) Limited. During the year 1952 an increased number of eminent Canadian musicians received invitations to perform on concert stages or to lecture at conservatories abroad, and the attention of foreign music critics is being directed more than ever before to the creative and performing abilities of Canadians.

**Organizations, Schools, etc.**—A large number of cultural bodies serve as centres of interest for Canadian writers, musicians, painters, dramatists, dancers, sculptors and others concerned with the arts. Most of these function on a local basis, although a number of national organizations have been gaining in strength and effectiveness during the past several years. The Canadian Arts Council is a federation of seventeen professional societies. The Canada Foundation, a non-governmental agency, provides a national information centre for cultural purposes and stimulates patronage in the form of scholarships and grants. The Royal Canadian Academy is the officially recognized prestige body in the field of the fine arts, although other groups—such as the

*A young potter throwing a bowl on the wheel.*





Canadian Group of Painters, Water Colour Society, Federation of Canadian Painters, the Sculptors Society and the Graphic Art Society—are well established and influential. National organizations to stimulate and direct annual festivals in the fields of music, theatre, opera and ballet are functioning successfully. Fine art schools in all parts of Canada are attracting capacity attendance at winter and summer sessions and, in most instances, there is a lack of accommodation to handle the full demand for instruction. University fine arts schools are operating with notable success at Queen's, Mount Allison, Laval, New Brunswick, Alberta, British Columbia and Montreal. The Ontario College of Art and Quebec's several *écoles des beaux arts* are recognized abroad as well as in all parts of Canada.

### ***Humanities and Social Sciences***

The humanities and social sciences represent those fields of intellectual effort that distinguish the university faculties of "arts"—language, literature, history, philosophy, economics, political science, sociology, etc.—from those of "science". Concern has been expressed in recent years over what appears to some in the universities to have been inadequate preparation of students in these studies at the level of secondary and elementary education. That there has been a decline in study of the classics there can be no doubt, but at the same time serious study of Canadian and world affairs and of contemporary culture has been increasing and the number of significant Canadian contributions to scholarship is advancing year by year.

The Canadian Social Science Research Council, founded in 1940, and the Humanities Research Council of Canada, founded in 1943, have followed similar courses in stimulating and improving the quality of studies in their respective fields. Both have assisted the publication of scholarly works, have assisted mature scholars in financing research and, by pre-doctoral fellowships, have stimulated advanced education. These activities have been financed largely by grants from the Rockefeller Foundation and the Carnegie Corporation of New York. However, administrative expenses of both Councils are now being met by grants from two dozen or more of the universities and colleges. Such funds enable the Councils to convene annual and special meetings at which projects are frequently launched for joint effort on a national basis. In 1950, the Humanities Association of Canada was set up on a basis of broad membership in the hope of serving a purpose in its field similar to those of the Canadian Historical Association, the Canadian Political Science Association, and the Canadian Institute of International Affairs.

As pointed out by the Royal Commission on National Development in the Arts, Letters and Sciences in its report of 1951, there is a great discrepancy between the encouragement that is given to students in these fields and to students in the natural sciences, through the medium of scholarships and fellowships. In the autumn of 1952, the Canadian Government for the first time made funds available for a group of scholarships in the humanities and social sciences. The funds were blocked balances standing to the credit of the Canadian Government in France and The Netherlands. The competition was administered by the Royal Society of Canada.

## Libraries

Authorization by the Federal Government for the establishment of a National Library of Canada, followed by the appointment of a National Librarian, has accelerated the critical appraisal of existing library services that has been under way in all provinces during the past five years.

At the national level, a sound foundation for national library service is being laid. The Bibliographic Centre of Canada, which was established in May 1950, is engaged in microfilming the catalogues of the main libraries of Canada for the purpose of establishing a Union Catalogue that in time will be incorporated in the catalogue of the National Library of Canada. By the end of 1952, the Centre had listed the holdings of 33 libraries comprising 2,500,000 volumes. The catalogue already has become a source of information for the promotion of inter-library loans. A second project undertaken by the Bibliographic Centre is the publication of *Canadiana*, a bilingual monthly list of books, pamphlets and periodicals published in Canada, or Canadian in subject content, or written by Canadians. The distribution of *Canadiana* to libraries in Canada and abroad has increased almost 50 p.c. since this service was established.

The Canadian Library Association has instituted a project that is complementary to those of the Bibliographic Centre. Some 60 newspapers of historic value have been microfilmed and catalogues and historic notes have been made available.

At the provincial level, marked progress has been made in the establishment of new regional libraries and in the appraisal of existing services. The British Columbia Library Commission in 1951 made an extensive survey of the union libraries of the Province. Alberta and Saskatchewan have each established one new regional library and Nova Scotia has four. Manitoba has passed legislation to permit the establishment of regional libraries, has

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*One person in ten of Canada's population is registered as a borrower in a public library.*



appointed a Director of Regional Libraries, and has authorized a province-wide survey preparatory to the formation of such regional areas. New Brunswick has authorized an immediate survey of the Province for the same purposes.

The most recent of the surveys of libraries in Canada, which are conducted biennially by the Dominion Bureau of Statistics, estimated that about 12 p.c. of the rural population received some type of library service in 1949. In 1938 a similar estimate reported less than 5 p.c. The increase is due largely to the extension of provincial travelling libraries, the establishment of regional libraries and the formation of county library co-operatives. The type of service has also improved through the employment of professional librarians. The total book stock held by the public libraries of Canada in 1949 approached 7,000,000 volumes, about one book for every two residents of the country. There were 22,000,000 loans made in the same year.

In keeping with the tradition of public libraries as local centres of culture, their services are being extended to include the loan of pictures and paintings, music scores and phonograph records, and films and projectors. Nearly a dozen libraries report art collections for loan. Several of these libraries are located in centres without other facilities for the study of great pictures. Film services and music libraries were reported by more than 30 libraries.

A significant feature of the general trend toward improvement of library service is the wide-scale building program that has been under way in the post-war years. In almost all provinces new modern library buildings are being constructed or are in the planning stage, and older library buildings are being enlarged and improved. This trend applies to university as well as public libraries.

## Museums

There are museums in Canada operated by the Federal Government, by provincial and municipal governments, by universities, colleges and local societies and there are as well a few privately owned collections.

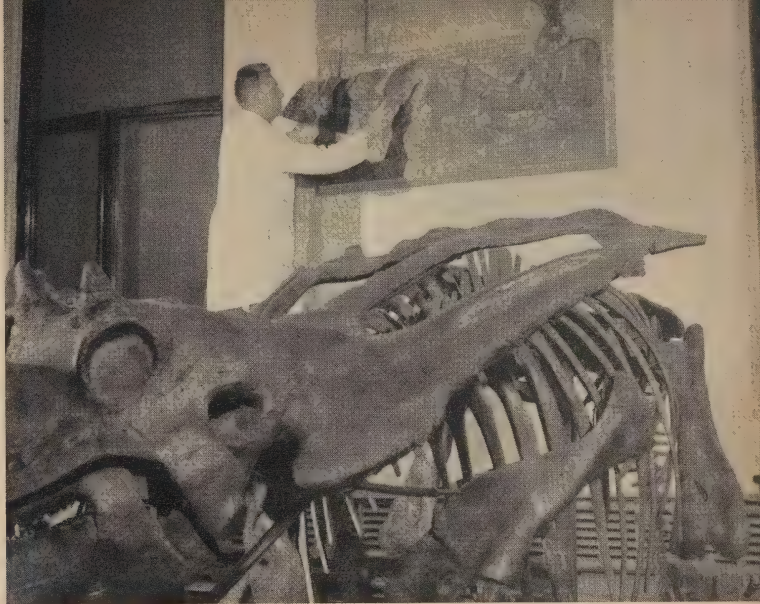
The National Museum, although essentially a museum of natural history, has collected an extensive exhibit of Indian and Eskimo lore and many phonographic recordings of French-Canadian, English-Canadian and Indian songs. Other federally operated museums include the Canadian War Museum, the nucleus of a historical museum housed in the Public Archives, a collection of aviation exhibits in the National Research Council, a farm implement exhibit at the Experimental Farm at Ottawa, and several historical museums situated in National Parks. All are modest in scope.

The Royal Ontario Museum is the largest and best-known of the provincial museums. It specializes in the field of archaeology and carries on extensive work in research and publication. The New Brunswick Museum, though smaller, is noted for its exhibits designed for school use. Laval University, McGill University, the University of Western Ontario and the University of British Columbia all have sizeable collections and certain private exhibits, such as that of the Hudson's Bay Company at Winnipeg and that of the Bell Telephone Company at Montreal, attract many visitors.

The National Gallery at Ottawa has assembled a permanent collection of paintings and sculpture, prints and drawings representative of past and



A museum artist touches up a painting of dinosaurs in the vertebrate palaeontology hall at the National Museum of Canada.



present styles from various countries. The Canadian section is most inclusive and is made known to the whole country through catalogues, photographs, colour reproductions, films, radio broadcasts and, to a limited extent, by loans. The extension work of the Gallery includes organization of exhibitions from collections abroad and the fostering of Canadian industrial art. There are also important collections available to the public in a number of the larger cities.

The Public Archives of Canada at Ottawa is particularly rich in pre-Confederation materials and several provincial governments support archival centres, some in collaboration with universities located in the capital cities, as in Halifax and Toronto.

The Canadian Museums Association was organized in 1947 to act as a clearing house for information of special interest to Canadian museums, to promote the training of museum workers, to facilitate the exchange of exhibits and to promote collaboration with museums of other countries.

## **Media of Mass Communication**

**The Press.**—Periodic publications to the value of about \$150,000,000 are produced in Canada each year, of which amount more than two-thirds is realized from advertising and less than one-third from subscription or sale. Printed and bound books are produced to the value of about \$20,000,000. While there is no record of the amount spent by Canadians on subscriptions to periodicals published abroad, it is probably more than the amount of subscriptions from abroad for Canadian publications. Recorded imports of books and other printed matter greatly exceeds recorded exports, the former amounting to about \$40,000,000 each year and the latter to about \$2,000,000. It appears that the per capita expenditure of Canadians on books, pamphlets and periodicals is in the neighbourhood of \$15 a year, about half of which is paid directly and half indirectly through payment for advertising.



*The Canadian Press newsroom, where a steady stream of news from the four corners of the world is edited and prepared for transmission by teletype to Canadian daily newspapers across the country.*

The largest item, that for newspapers, covers more than half the total. About 95 daily newspapers, counting morning and evening editions separately, are published in Canada, with an aggregate reported circulation of more than 3,500,000—about 80 p.c. in English and the remainder in French, except for a few in Yiddish or Chinese. Ten of the papers enjoying circulations near or in excess of 100,000 account for more than half of the circulation. Well over 90 p.c. of all newspaper circulation is in the cities.

Weekly or monthly publications with a total circulation in excess of 1,000,000, include a considerable variety of foreign-language publications including Ukrainian, German, Yiddish, Polish, etc. Weekly newspapers serve a much greater percentage of the people in rural communities than do the dailies.

The combined circulation of Canadian magazines is about 11,000,000. In order of popularity, magazines classified as home, social and welfare come first, agriculture second, and religion third.

Purchases of books and other printed matter from the United States are significant, recorded imports averaging about \$35,000,000 for each of the past five years. Imports from the United Kingdom have shown an increase in post-war years but amounted only to about \$2,317,000 in 1951. In the same year, imports from France, the third largest supplier, were valued at \$900,000.

**Radio and Television.**—Radio broadcasting and television in Canada are dealt with at pp. 257-262. The number of radio receiving sets made available in Canada through production and imports has averaged about 700,000 per year since the end of World War II, and the average price to the buyer in that period was about \$70 per set. The Census of 1951 found that 93 p.c. of the 3,408,000 households in Canada had radios. In some cities there were few households without one, and in the country as a whole one family in ten had two or more.

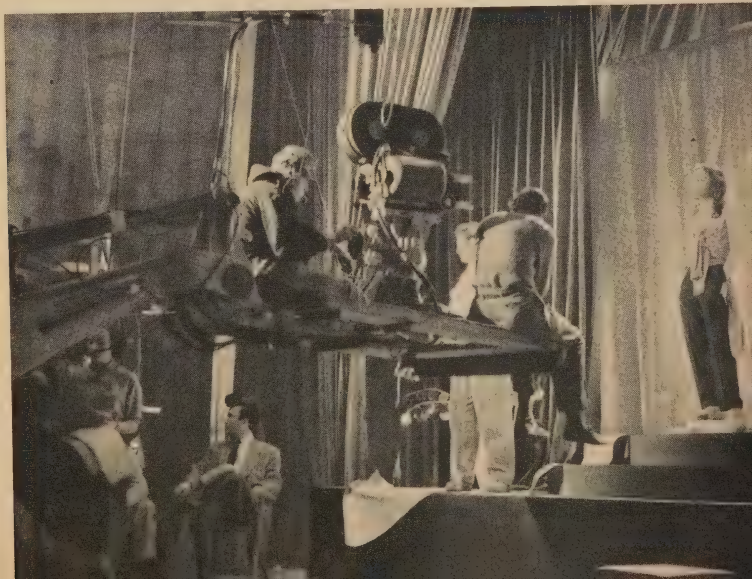


With the establishment of television service by the Canadian Broadcasting Corporation in 1952 the demand for receiving sets increased greatly. Production of fewer than 30,000 sets had met the demand in 1950 when it was confined to border points relying on United States broadcasts, but approximately the same number were manufactured in the first half of 1952.

**Motion Pictures.**—In 1951, there were 1,808 motion-picture theatres in Canada with a seating capacity approaching one million, 82 drive-in theatres, 632 community halls offering screenings, and 175 itinerant motion-picture exhibitors. On the average, each Canadian attended 18 motion-picture programs and paid \$7 in admissions. Most of the films shown were produced in the United States although a small but increasing number of films came from the United Kingdom and a few from France and other European countries.

While few feature-length films for commercial theatres are produced in Canada (some notable exceptions being French-language films in Quebec), there is a considerable production of documentary shorts by the National Film Board and by commercial producers, several of which have won international awards. In 1949 the Canadian Association for Adult Education instituted a series of annual awards for distinguished Canadian film productions, including theatrical and non-theatrical types, amateur and professional work. The project was developed by the Association's Joint Planning Commission composed of representatives of fifty national organizations interested in education and the arts.

Schools, adult education agencies, and other community groups are making increased use of films. More than 4,000 schools have motion-picture projectors and more than 3,000 have film-strip projectors. There are some 200 film libraries and community film councils in existence, usually developed by public libraries, provincial departments of education, or university extension departments, with the co-operation of school boards, service clubs, etc. The National Film Board has established some 160 rural circuits for periodic film-showing and local libraries receive assistance in obtaining films from the Film Board and the Canadian Film Institute. The distribution of Canadian films abroad has become an important part of the Board's work.



*National Film Board movie crew filming a sequence during the production of "Talent Showcase".*





*Refinery at Sorel, Que., which handles the titanium-rich iron ore from the Allard Lake district.*

# National Income

## Survey of Production

THIS analysis summarizes the year-to-year changes in the value of Canada's annual production of goods and services, and describes the way in which this total product of the country's economic activity is utilized to satisfy consumer wants, to provide government services, or to increase the nation's capital at home and abroad. The first section, "National Income", deals with net national income at factor cost, gross national product and expenditure, and personal income and its disposition. The second section, "Survey of Production", describes the net value of commodity production.

### • National Income

Net national income at factor cost, or *National Income*, measures the value of current production after provision has been made for depreciation of capital assets, and exclusive of indirect taxes less subsidies. It is equal to the annual earnings of Canadian residents from the production of goods and services, that is, the sum of wages, salaries and supplementary labour income, military pay and allowances, corporation profits and other returns on invested capital, and net income of farmers and other enterprisers who are in business on their own account.

*Gross National Product* is defined as the value at market prices of all the goods and services produced in a year by the labour, capital and enterprise of Canadian residents, measured through a consolidated national accounting of the costs involved in their production. It is obtained by adding to national income indirect taxes and depreciation allowances and similar business costs that enter into the cost of goods and services (and hence market prices) but do not form a part of the incomes of Canadians. A minor item, government subsidies, is deducted since its effect is to reduce the money cost of goods and services produced.

*Gross National Expenditure* is defined as the market value of all goods and services produced in a year by the labour, capital and enterprise of Canadian residents, measured through a consolidated national accounting of the sales of these goods and services, including changes in inventories. Thus, while it measures the same total as gross national product, it indicates how the goods and services produced are disposed of to households, governments, to business (on capital account), and to non-residents.

**National Income and Gross National Product.**—The national income expressed in current dollars increased by 18 p.c. from 1950 to 1951, from \$14,555,000,000 to \$17,229,000,000. This increase was mainly due to increases in salaries, wages and supplementary labour income of \$1,369,000,000, investment income of \$567,000,000, and accrued net income of farm operators of \$591,000,000. Net income of non-farm unincorporated business and military pay and allowances also rose moderately.

The gross national product reached \$21,241,000,000 in 1951, a gain of 17 p.c. over 1950. Since it is measured in terms of current dollars, the gross national product reflects price changes as well as changes in the physical volume of production. If adjustments are made to eliminate the influence of price changes, it appears that the real output of goods and services increased by more than 5 p.c.

During the post-war years 1946-51, the value of total output increased 77 p.c. With the effect of price increases removed, the total volume showed a relative gain of approximately 19 p.c.

### **Net National Income at Factor Cost and Gross National Product at Market Prices, Significant Years, 1929-51**

(Millions of Dollars)

| Item                                                         | 1929         | 1933         | 1939         | 1944          | 1946          | 1948          | 1949          | 1950          | 1951          |
|--------------------------------------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Salaries, wages and supplementary labour income.             | 2,929        | 1,778        | 2,575        | 4,940         | 5,323         | 7,170         | 7,761         | 8,271         | 9,640         |
| Military pay and allowances.....                             | 8            | 8            | 32           | 1,068         | 340           | 82            | 115           | 137           | 201           |
| Investment income.....                                       | 836          | 299          | 917          | 1,829         | 1,975         | 2,464         | 2,445         | 3,088         | 3,655         |
| Net Income of Agriculture and Other Unincorporated Business— |              |              |              |               |               |               |               |               |               |
| Farm operators from farm production.....                     | 408          | 74           | 385          | 1,185         | 1,112         | 1,518         | 1,504         | 1,547         | 2,138         |
| Other unincorporated business.....                           | 608          | 293          | 464          | 804           | 1,071         | 1,326         | 1,369         | 1,512         | 1,595         |
| <b>Net National Income at Factor Cost.....</b>               | <b>4,789</b> | <b>2,452</b> | <b>4,373</b> | <b>9,826</b>  | <b>9,821</b>  | <b>12,560</b> | <b>13,194</b> | <b>14,555</b> | <b>17,229</b> |
| Indirect taxes less subsidies.....                           | 681          | 537          | 733          | 1,111         | 1,269         | 1,772         | 1,830         | 2,005         | 2,386         |
| Depreciation allowances and similar business costs.....      | 709          | 547          | 610          | 957           | 903           | 1,276         | 1,437         | 1,607         | 1,763         |
| Residual error of estimate.                                  | -13          | +16          | -9           | +60           | +33           | +5            | +1            | -45           | -137          |
| <b>Gross National Product at Market Prices.....</b>          | <b>6,166</b> | <b>3,552</b> | <b>5,707</b> | <b>11,954</b> | <b>12,026</b> | <b>15,613</b> | <b>16,462</b> | <b>18,122</b> | <b>21,241</b> |

**Gross National Expenditure.**—Most components of the gross national expenditure showed an increase in 1951 compared with 1950. Personal expenditure on consumer goods and services increased from \$11,862,000,000 to \$13,062,000,000 but, after correcting for price changes, no increase in the real volume of consumer goods and services was indicated.

Government expenditure on goods and services increased by \$797,000,000 in 1951 over 1950, mainly as a result of higher defence expenditure which rose from \$493,000,000 to \$1,160,000,000. Provincial-municipal expenditures were also somewhat higher.

The aggregate of gross domestic investment increased by \$1,236,000,000 with investment in inventories and new machinery and equipment accounting for the greater part of the increase. Gains were also recorded in investment in new non-residential construction, but the value of residential construction declined by 3 p.c. In volume terms, the decline in residential construction was about 16 p.c. while non-residential construction rose by about 6 p.c.





Farm families constitute one-fifth of the home market for all the various goods and services produced by Canadian workers in every type of occupation. Anything that affects the buying power of these farm people, favourably or unfavourably, is quickly reflected in other industry, so that good crops, good markets and prices that yield a fair return are essential to the continuing prosperity of every Canadian from coast to coast.

### Gross National Expenditure at Market Prices, Significant Years, 1929-51

(Millions of Dollars)

| Item                                                         | 1929         | 1933         | 1939         | 1944          | 1946          | 1948          | 1949          | 1950          | 1951          |
|--------------------------------------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Personal expenditure on consumer goods and services.....     | 4,393        | 2,887        | 3,904        | 6,187         | 7,977         | 10,112        | 10,963        | 11,862        | 13,062        |
| Government expenditure on goods and services <sup>1</sup> .. | 682          | 526          | 735          | 5,022         | 1,832         | 1,798         | 2,128         | 2,323         | 3,120         |
| Gross Domestic Investment—                                   |              |              |              |               |               |               |               |               |               |
| Plant equipment and housing.....                             | 1,330        | 239          | 605          | 859           | 1,398         | 2,685         | 2,968         | 3,216         | 3,807         |
| Inventories.....                                             | 61           | -82          | 331          | -46           | 519           | 605           | 231           | 1,005         | 1,650         |
| Exports of goods and services <sup>2</sup> .....             | 1,632        | 826          | 1,451        | 3,561         | 3,210         | 4,054         | 4,011         | 4,185         | 5,099         |
| Imports of goods and services.....                           | -1,945       | -828         | -1,328       | -3,569        | -2,878        | -3,636        | -3,837        | -4,514        | -5,633        |
| Residual error of estimate.                                  | +13          | -16          | +9           | -60           | -32           | -5            | -2            | +45           | +136          |
| <b>Gross National Expenditure at Market Prices.</b>          | <b>6,166</b> | <b>3,552</b> | <b>5,707</b> | <b>11,954</b> | <b>12,026</b> | <b>15,613</b> | <b>16,462</b> | <b>18,122</b> | <b>21,241</b> |

<sup>1</sup> Includes UNRRA, Mutual Aid, etc., of \$960,000,000, \$97,000,000 and \$19,000,000 in the years 1944, 1946 and 1948, respectively.

<sup>2</sup> Excludes UNRRA, Mutual Aid, etc.,

see footnote 1.



*The amount of money spent on food in 1951 was \$3,436,000,000, which was more than one-quarter of the total personal expenditure on consumer goods and services of all kinds.*

Imports rose more rapidly than exports from 1950 to 1951, the increase in imports of \$1,119,000,000 comparing with an increase of \$914,000,000 in exports. Thus there was a deficit of \$534,000,000 in 1951 compared with a deficit of \$329,000,000 in 1950.

It is interesting to compare the spending pattern of the nation in the war year 1944 with 1951, the latest year for which data are available. Under pressure of war requirements, consumer spending was curtailed, with the result that in 1944 only 52 p.c. of gross national expenditure was absorbed by personal expenditure on consumer goods and services. In the same year government spending, mainly for war requirements, absorbed 42 p.c. of total output and gross domestic investment was relatively small. In 1951, on the other hand, personal expenditure on consumer goods and services accounted for 61 p.c. of gross national expenditure while government expenditure was only 15 p.c. At the same time, gross domestic investment in housing, plant, equipment and inventories accounted for 25 p.c. of gross national expenditure.

**Personal Income and Expenditure.**—*Personal income* is derived from national income by subtracting elements of national income not paid out to persons, such as undistributed corporation profits, and adding transfer payments such as family allowances, relief payments, etc.

Personal direct taxes took approximately 6 p.c. of personal income in 1951 and 5 p.c. in 1950, as compared with 9 p.c. in 1944. On the other hand, personal expenditure on consumer goods and services absorbed 83 p.c. in 1951 and only 69 p.c. in 1944. A definite shift in the pattern of consumer spending occurred during this period. The proportion of expenditure for durable goods, such as automobiles and refrigerators, which were in short supply during the War, rose from 5 p.c. in 1944 to 10 p.c. in 1951, despite credit restrictions and high excise taxes in the latter year. At the same time, the proportion spent for food and clothing also declined. Personal saving (excluding changes in farm inventories) was 8·7 p.c. of personal income in 1951 and 5·4 p.c. in 1950. This compares with 23·1 p.c. in 1944 when shortages existed in many lines of consumer goods and the government system of war finance encouraged intensive savings programs.



## Personal Income, by Sources, Significant Years, 1929-51

(Millions of Dollars)

| Source                                                                                          | 1929         | 1933         | 1939         | 1944         | 1946         | 1948          | 1949          | 1950          | 1951          |
|-------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| Salaries, wages and supplementary labour income.....                                            | 2,929        | 1,778        | 2,575        | 4,940        | 5,323        | 7,170         | 7,761         | 8,271         | 9,640         |
| Less: Employer and employee contributions to social insurance and government pension funds..... | -27          | -21          | -35          | -133         | -149         | -224          | -239          | -259          | -316          |
| Military pay and allowances.....                                                                | 8            | 8            | 32           | 1,068        | 340          | 82            | 115           | 137           | 201           |
| Net income of agriculture and other unincorporated business.....                                | 1,015        | 396          | 899          | 2,010        | 2,161        | 2,953         | 2,969         | 2,958         | 3,786         |
| Interest, dividends and net rental income of persons <sup>1</sup> .....                         | 639          | 501          | 620          | 858          | 980          | 1,099         | 1,201         | 1,338         | 1,506         |
| Transfer payments from governments to persons.                                                  | 93           | 181          | 229          | 259          | 1,106        | 863           | 950           | 1,012         | 1,001         |
| <b>Totals, Personal Income.....</b>                                                             | <b>4,657</b> | <b>2,843</b> | <b>4,320</b> | <b>9,002</b> | <b>9,761</b> | <b>11,943</b> | <b>12,757</b> | <b>13,457</b> | <b>15,818</b> |

<sup>1</sup> Includes charitable donations from corporations.

*Trading Floor of the Toronto Stock Exchange where buyer and seller meet and where money is put to work for the future growth of Canada. Greatly expanded reserves of disposable income in the hands of Canadians and the stepped-up inflow of foreign capital have elevated this exchange to one of the top positions among the stock exchanges of the world.*





## Disposition of Personal Income, Significant Years, 1929-51

(Millions of Dollars)

| Item                                                            | 1929         | 1933         | 1939         | 1944         | 1946         | 1948          | 1949          | 1950          | 1951          |
|-----------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| <b>Personal Direct Taxes—</b>                                   |              |              |              |              |              |               |               |               |               |
| Income taxes.....                                               | 34           | 38           | 62           | 772          | 711          | 717           | 677           | 612           | 890           |
| Succession duties.....                                          | 16           | 13           | 28           | 39           | 54           | 58            | 55            | 63            | 63            |
| Miscellaneous.....                                              | 18           | 18           | 22           | 27           | 31           | 47            | 57            | 60            | 63            |
| <b>Totals, Direct Taxes...</b>                                  | <b>68</b>    | <b>69</b>    | <b>112</b>   | <b>838</b>   | <b>796</b>   | <b>822</b>    | <b>789</b>    | <b>735</b>    | <b>1,016</b>  |
| <b>Personal expenditure on consumer goods and services.....</b> | <b>4,393</b> | <b>2,887</b> | <b>3,904</b> | <b>6,187</b> | <b>7,977</b> | <b>10,112</b> | <b>10,963</b> | <b>11,862</b> | <b>13,062</b> |
| <b>Personal Saving—</b>                                         |              |              |              |              |              |               |               |               |               |
| Net changes in farm inventories.....                            | -129         | -33          | 60           | -103         | -57          | -65           | -72           | 131           | 370           |
| Other.....                                                      | 325          | -80          | 244          | 2,080        | 1,045        | 1,074         | 1,077         | 729           | 1,370         |
| <b>Totals, Personal Saving</b>                                  | <b>196</b>   | <b>-113</b>  | <b>304</b>   | <b>1,977</b> | <b>988</b>   | <b>1,009</b>  | <b>1,005</b>  | <b>860</b>    | <b>1,740</b>  |
| <b>Totals, Personal Income.....</b>                             | <b>4,657</b> | <b>2,843</b> | <b>4,320</b> | <b>9,002</b> | <b>9,761</b> | <b>11,943</b> | <b>12,757</b> | <b>13,457</b> | <b>15,818</b> |

### • Survey of Production

The scope of this section is limited to the actual production of commodities. The activities of such industries as transportation, communication, trade, finance, etc., are excluded except as they are indirectly reflected in the value of output of the "commodity-producing" industries. This is in contrast to the scope of the widely used "gross national product" series which encompasses all industries. Net production, or "value added", is generally considered the more significant measure of production, and is consequently stressed in the following analysis. It is obtained by deducting from the total value of output, the cost of material, fuel, purchased electricity and process supplies consumed in the production process.

The value series shown in the accompanying tables incorporate basic changes in classification and method of compilation for several of the commodity-producing industries. Adjustments for duplication between primary and secondary industries, necessary under the former system of compilation, were eliminated.\*

**Current Trends.**—In 1950, the net value of commodity production in Canada rose to the record level of \$10,562,000,000, an advance of more than 9 p.c. over 1949. Most of the increase occurred in the field of secondary production (manufacturing and construction). Higher prices and an appreciable gain in the volume of output for the majority of industries accounted for the substantial advance.

Preliminary estimates indicate further increases in the values of both primary and secondary production in 1951. The index of industrial production, which measures the volume of output in the manufacturing, mining and electric power sectors, rose by 7 p.c. over 1950, while the general index of wholesale prices advanced by 14 p.c. The value of farm output was also considerably higher in 1951, due to larger crops and higher prices.

\* A description of methods of compilation and of the relationship of "value added" to "gross national product" is given in D.B.S. publication *Survey of Production, 1938-1950*.



*Logs in the Gatineau River, Que., on their way to the mills. The Province of Quebec produces more than one-third of all Canada's pulp and paper products.*

Little change was indicated in the level of the volume of industrial output during the first nine months of 1952 compared with the same period of the preceding year. Wholesale prices declined by over 5 p.c. in the same comparison and, although prices of farm products also declined, favourable growing and harvesting conditions resulted in record crops of wheat, barley and soybeans and near-record or above-average outturns of most other field crops.

**Industrial Distribution.**—Between 1947 and 1950, the total net value of commodity production rose by more than 42 p.c. Higher price levels, sustained demand for consumer goods at home and abroad, rapid industrial development and the expansion of defence industries all contributed to this rapid advance. Most of the industrial groups showed increases in the four-year comparison, the largest gains being recorded in construction, mining and fisheries. The continuing high level of building activity and the rapid advance of construction costs resulted in an increase of 113 p.c. in value of output for the construction industry. Higher prices and greater volume also accounted for the 63-p.c. gain in the value of mining and the 43-p.c. advance in the value of fisheries. In manufactures, total net value in 1950 rose by

more than 38 p.c. over the 1947 level. Although the greater part of this increase was due to higher prices, there was an advance of 10 p.c. in volume of output. The electric power industry also expanded steadily since the end of the War, while forestry operations, after showing a moderate decline in 1949, resumed their upward trend in 1950. The value of agricultural output, after having receded 1.3 p.c. between 1948 and 1949, showed a further decline of about 7 p.c. in 1950, but was still 25 p.c. greater than in 1947. Trapping was the only industry showing a lower level in value of output in 1950 compared with 1947.

### *Net Value of Production, by Industries, 1947-50*

| Industry                          | 1947                 | 1948                 | 1949                             | 1950                              |
|-----------------------------------|----------------------|----------------------|----------------------------------|-----------------------------------|
|                                   | \$                   | \$                   | \$                               | \$                                |
| Primary Production—               |                      |                      |                                  |                                   |
| Agriculture.....                  | 1,507,519,000        | 2,045,693,000        | 2,019,279,000                    | 1,886,766,000                     |
| Forestry.....                     | 318,260,922          | 360,908,642          | 346,455,391                      | 381,326,000                       |
| Fisheries.....                    | 57,516,421           | 75,374,457           | 67,457,941                       | 82,191,043                        |
| Trapping.....                     | 16,842,966           | 20,178,077           | 15,296,615                       | 15,204,419                        |
| Mining.....                       | 402,538,490          | 538,762,152          | 570,215,430                      | 657,328,924                       |
| Electric power.....               | 232,245,222          | 248,963,255          | 270,126,982                      | 313,347,197                       |
| Totals, Primary Production.....   | 2,534,923,021        | 3,289,879,583        | 3,288,831,359                    | 3,336,163,583                     |
| Secondary Production—             |                      |                      |                                  |                                   |
| Manufactures.....                 | 4,292,055,802        | 4,938,786,981        | 5,330,566,434 <sup>1</sup>       | 5,942,058,229 <sup>1</sup>        |
| Construction.....                 | 601,539,452          | 829,644,000          | 1,066,649,000                    | 1,284,065,000                     |
| Totals, Secondary Production..... | 4,893,595,254        | 5,768,430,981        | 6,397,215,434                    | 7,226,123,229                     |
| <b>Grand Totals.....</b>          | <b>7,428,518,275</b> | <b>9,058,310,564</b> | <b>9,686,046,793<sup>1</sup></b> | <b>10,562,286,812<sup>1</sup></b> |

<sup>1</sup> Exclusive of fish processing in Newfoundland.

**Provincial Distribution.**—Substantial increases in net value of output were shown by all provinces and territories (Newfoundland not included in this comparison) between 1947 and 1950.

### *Net Value of Production, by Provinces, 1947-50*

| Province                                           | 1947                 | 1948                 | 1949                 | 1950                  |
|----------------------------------------------------|----------------------|----------------------|----------------------|-----------------------|
|                                                    | \$                   | \$                   | \$                   | \$                    |
| Newfoundland.....                                  | ...                  | ...                  | 74,878,122           | 83,136,971            |
| Prince Edward Island.....                          | 18,514,401           | 26,147,059           | 27,506,835           | 29,063,330            |
| Nova Scotia.....                                   | 188,394,052          | 238,787,233          | 257,847,743          | 261,640,223           |
| New Brunswick.....                                 | 175,128,238          | 203,970,853          | 206,223,563          | 225,128,289           |
| Quebec.....                                        | 1,975,219,843        | 2,344,594,144        | 2,520,821,801        | 2,752,444,949         |
| Ontario.....                                       | 3,053,858,761        | 3,650,422,166        | 4,006,778,159        | 4,507,301,611         |
| Manitoba.....                                      | 349,811,482          | 466,823,080          | 461,371,653          | 474,576,230           |
| Saskatchewan.....                                  | 445,853,279          | 597,878,284          | 611,596,461          | 528,005,571           |
| Alberta.....                                       | 479,804,407          | 654,212,516          | 666,202,750          | 712,069,997           |
| British Columbia.....                              | 735,411,095          | 865,882,886          | 840,180,749          | 971,878,669           |
| Yukon and Northwest Territories <sup>1</sup> ..... | 6,522,717            | 9,592,343            | 12,638,957           | 17,040,972            |
| <b>Totals.....</b>                                 | <b>7,428,518,275</b> | <b>9,058,310,564</b> | <b>9,686,046,793</b> | <b>10,562,286,812</b> |

<sup>1</sup> Production in forestry and construction in the Yukon and Northwest Territories is included with British Columbia.

The largest percentage gain, amounting to 57 p.c., was recorded by Prince Edward Island. Ontario and Alberta followed with advances of about 48



p.c., Quebec and Nova Scotia 39 p.c., Manitoba 36 p.c., British Columbia 32 p.c. and New Brunswick 29 p.c. Saskatchewan, with a predominantly agricultural economy, showed a gain of 18 p.c. over the period, but was the only province showing a decrease in 1950 compared with 1949.

**Analysis of Provincial Production.**—In *Prince Edward Island*, the value of agriculture declined slightly in 1950 as compared with the previous year and accounted for 56 p.c. of the Province's output. Manufactures, fisheries and construction, the latter showing the largest increase, accounted for the bulk of non-agricultural production. In *Nova Scotia*, manufacturing, which accounted for more than 37 p.c. of value of production, declined moderately compared with 1949, but most other industries increased. All industries in *New Brunswick* recorded advances except forestry. The value of mining nearly doubled and that of manufactures rose by more than 16 p.c.

In *Quebec* the manufacturing industry, which contributes about 65 p.c. of the Province's total net output, showed a gain of nearly 9 p.c. in 1950 as compared with 1949. The value of mining rose by 40 p.c. and construction and electric power each by about 10 p.c. in the same comparison. Increases in agriculture and forestry were more moderate.

In 1950 the value of manufacturing output in *Ontario*, which accounts for more than two-thirds of the provincial total, increased by more than 13 p.c. over 1949. Construction and electric power rose by 22 p.c. and 24 p.c., respectively. Gains in the other industries were more moderate. The relative importance of agriculture, forestry and mining declined whereas that of electric power, manufactures and construction increased.

Production in *Manitoba* is dominated by agriculture and manufacturing, although the contribution of the former to total output has dropped in recent years. In 1950, all industries except agriculture increased appreciably in value over 1949. In *Saskatchewan*, agriculture accounted for almost 74 p.c. of the value of production although it fell off sharply from the previous year. By contrast, construction rose more than 34 p.c., and manufactures and electric power also gained in value, but mining declined. The relative importance of agriculture in *Alberta* has been dropping considerably in the past few years in favour of construction and mining which have shown large advances in value of output.

The value of manufacturing in *British Columbia*, which contributed nearly 50 p.c. of the Province's value of commodity output, rose by 17 p.c. in 1950 over the preceding year. Construction, forestry, fisheries and electric power also showed considerable increases, but the value of agriculture declined.

**Per Capita Output.**—The per capita net value of production in nine provinces (Newfoundland excluded) rose to \$784 in 1950 as compared with \$734 in 1949 and \$592 in 1947. Ontario continued by a wide margin to hold first place with a per capita figure of \$1,008, while British Columbia with \$852 was in second position; Alberta held third place with a per capita production of \$780. Quebec, Saskatchewan and Manitoba followed in that order with per capita figures of \$693, \$634 and \$618. The last three positions were held by New Brunswick, Nova Scotia and Prince Edward Island with per capita output levels of \$440, \$410 and \$303, respectively. Compared with 1949, all provinces showed gains except Saskatchewan, which receded sharply due to lower agricultural returns, and Nova Scotia, which remained unchanged.



# Agriculture

**A**GRICULTURE is Canada's most important primary industry, although the country is not so predominantly agricultural as it was two decades ago, or even one decade ago. The great industrial development that has taken place during that period has changed the national economy so that now only 15.6 p.c. of the total labour force, or 20.0 p.c. of the male labour force, is directly employed in agriculture. However, indirectly, the farm provides employment for many more Canadian workers. The raw products of the farm must in many instances be further processed in meat-packing plants, in canning factories, in milk, cheese and butter establishments, or in flour-mills. The final products must be graded, packaged, transported and marketed. Also, further employment is provided in producing farm equipment and supplies—machinery and implements, fertilizers and pesticides.

The number of occupied farms in Canada, as reported by the Census of June 1, 1951, was 623,091, including Newfoundland's 3,626 farms. Leaving Newfoundland out of the comparison, the decrease in the number of farms since the Census of 1941 amounted to an estimated 58,000. On the other hand, the area of occupied farms increased from 173,566,063 acres in 1941 to 173,961,614 acres in 1951. Decreases in the five eastern provinces totalling 3,994,480 acres were offset by an increase of 3,723,676 acres in the Prairie Provinces and of 668,704 acres in British Columbia.

Canada is primarily a land of family farms, operated as individual units or as combinations of family farms under individual ownership and control. For the country as a whole, 77.3 p.c. of the farms are operated by the owner, 21.5 p.c. by a tenant or partly by owner and partly by a tenant, and only 1.2 p.c. are operated by employed management. Quebec ranks highest in owner-operated farms with 94 p.c., followed closely by the other eastern provinces and British Columbia. The Prairie Provinces have the highest proportion of tenant-operated farms and manager-operated farms. In the West, farms are rented mainly on a share basis because of the hazards involved in large-scale one-crop farming, while eastern farms are usually rented on a cash basis.

For the most part the area cultivated is limited to what the family unit can manage with perhaps a small amount of hired help. The size of operation depends on the type of farming practised. On specialized farms raising such crops as fruit, vegetables or tobacco, acreages are small. On the highly mechanized grain-growing farms of the western prairies the operator may handle up to 1,000 acres or more with little outside assistance. For Canada as a whole, 17 p.c. of the farms are under 70 acres in size and 19 p.c. are over 400 acres. In the eastern provinces, where many farms specialize in fruit, vegetables or dairying or carry on mixed farming, the acreages range mainly from 10 to 130 acres. In Ontario and Quebec about half the farms are in the 70 to 180 acre group, while 87 p.c. of the farms of over 760 acres are located in Saskatchewan and Alberta. In British Columbia, again a specialized farming district, 66 p.c. of the farms are in the 3 to 70 acre group.





*For a century, the local fall fair has played an important role in Canadian agriculture.*

For the production of crops Canadian farmers used \$1,933,312,262 worth of machinery in 1951 and over half of the farms were served with electric power. There was one tractor for every 242 acres of improved agricultural land. In the grain-growing area large tractors of 25 to 50 h.p. are common, while smaller sizes are more generally used in other sections of the country. Tillage and harvesting equipment in use on farms varies according to the crops produced, size of farm and other factors. The pitch fork and hay loader are still used in haying on many farms but machines such as sweep rakes, pick-up balers and forage-crop harvesters are becoming increasingly popular. Combines are used extensively to harvest the crop on large grain farms but the binder is still used on many of the smaller farms.

**Farm Crops.**—The kinds of crops grown and the cultivating practices followed vary greatly in different parts of Canada. In general, the country may be considered in terms of four broad divisions, separated from one another by natural barriers and in which differences in soil, climate and topography make for wide variation of crop production.

Agricultural operations in British Columbia are carried on principally in the mountain valleys and on the coastal plains and include dairying, poultry-raising, the growing of apples and small fruits, seed-growing and market-gardening. Cattle ranching on a large scale is carried on in the areas between the mountain ranges of the interior.

The Prairie Provinces of Alberta, Saskatchewan and Manitoba form a block which includes about 71 p.c. of the occupied farm land of the country. The area is used chiefly for grain production and it is on these prairie farms that Canada's spring wheat is harvested. In the eastern part of the Prairies is an important dairying area where cheese production predominates. There the climate is more extreme than in other agricultural areas—the frost-free period is fairly short and rainfall is limited and variable. The choice of farm enterprise is severely restricted by nature and distance from markets.

The Provinces of Quebec and Ontario comprise a central region. Most of the agricultural portions of these Provinces are favoured with a temperate

climate. Here are located the densest centres of population, and local conditions and proximity to markets are conducive to varied types of farming. Thus, near many of the large urban centres there are areas where farmers cater to city demand for dairy produce, market-garden truck, potatoes and other vegetables, and poultry. In the general inter-lake region of Ontario, one of the earliest settled portions of the Province, there are several large areas where beef-raising is important and where long-established dairying districts are located. The mild climate of the Niagara Peninsula favours fruit-growing and vegetable production, while the counties along the shores of Lake Erie produce market-garden crops, cigarette tobacco, sugar-beets, corn, orchard crops, and produce for canning.

Agricultural production in the Province of Quebec is concentrated on both sides of the St. Lawrence River where the climatic conditions are favourable for dairying, poultry-raising and hog-raising. There is, in addition, a fringe of farming somewhat north of this. In a fairly well defined area tobacco is grown, largely of the pipe and cigar type. In the vicinity of Montreal, there is a highly specialized area where small fruits, apples, vegetables and poultry are main enterprises. Some of the districts bordering the United States specialize in dairy farming, and maple syrup and sugar are important additions to the farm income in many sections.

In the eastern Provinces of Prince Edward Island, Nova Scotia and New Brunswick the climate is generally temperate, favouring dairying, mixed farming, potato-growing, and the growing of apples and other fruits. The agriculture of Newfoundland is chiefly local in character.

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*Potato-growing is the main enterprise on many of the farms in the St. John River Valley of New Brunswick. This is a field of Katahdins grown for the certified seed market.*





Thus, most of Canada's food needs are produced within the country. Imports include mainly tropical and semi-tropical commodities—tea, coffee, cocoa, rice and citrus fruits. Some fresh fruits and vegetables are imported during the off-season.

**Export Trade.**—The agricultural production of Canada is greater than domestic needs and farming adapted to export trade has consequently been a natural development. Not only is Canada a large exporter but, according to a study by the United Nations, it is one of the few countries to maintain output at a level above that of 1934–38.

Canada's exports include wheat and flour, animals, meat and other animal products, dairy and poultry products, apples and other fruits, potatoes (both seed and table stock), canned and processed foods of many kinds, dried beans, field and garden seed and tobacco. For fifty years or more, the Government has been steadily establishing and improving standards of quality for export commodities. These standards are widely recognized abroad and, because they are strictly maintained, many Canadian foods and agricultural products command premium prices in world markets. Canada also exports numbers of live stock for breeding purposes, under a health-inspection arrangement that makes them acceptable to all countries.

**Services Available to the Farmer.**—The Federal Government, as well as the provincial governments, have long recognized the complexity of production and marketing problems facing the farmer and each government has established a department or branch of agriculture to administer a multitude of national and local services which assist the farmer in almost every field of his endeavour. Each year representatives of the provincial governments meet with federal agricultural officials and representatives of organized farmers to consider broad plans for guiding agricultural production during the following season. These annual conferences afford opportunities for co-operative attacks on the problems that confront Canadian farmers.

The Federal Department of Agriculture has a chain of experimental farms and research laboratories stretching across the country. They are located to serve the needs of a wide variety of farming enterprises and of specialized areas of soil and climate. These institutions conduct scientific research on methods of pest and disease control, the micro-biology of soils and foodstuffs, the nutritional requirements of plants and animals and the development of superior types of plants and animals. Long-time investigations are conducted on crop production and the effects of various cultural methods on soil fertility and erosion. The application of mechanical power to farm operations is studied in detail both in relation to farm efficiency and the effect on soil and water conservation. Laboratory research is directed towards control of insect and fungus pests of crop plants and forest trees, control of disease in live stock, improvement in techniques for the processing and storage of farm products, application of genetics in the development of superior lines of plant and animal material, and to many other problems of agriculture.

Economic research on a broad scale is also carried on. Studies in farm management, land utilization, marketing and farm family living are undertaken in all parts of the country by trained workers.

The work of these research institutions is conducted in co-operation with other government agencies, both federal and provincial, and with universities.



*Inspecting barley grown at a Dominion Experimental Station near Prince George, a mixed farming district in the central interior of British Columbia.*



Services of highly skilled workers are available without charge to farmers who require assistance and advice. Both federal and provincial agricultural authorities keep the farmers informed of new developments through the use of bulletins, posters, newspaper articles, films, exhibits at rural fairs, and specialized radio programs. Departments and universities supply speakers for extension courses on agricultural problems and community welfare and current information on markets for farm products is given to the public in the form of daily and weekly radio and printed reports. Most of the information is free of charge.

Federal developmental assistance includes grants to cold storages, warehousing and processing plants and financial support of organized activities that have to do with improving the quality of live stock and crops. Seed crop inspection service promotes the production of registered and certified seed to assure the constant supply to farmers of pure-bred seed of the best

*Different types of combines being demonstrated on test plots on Wheatland Day, an annual event at which the latest information on wheat-growing and harvesting is made available to Ontario farmers.*



varieties. Other inspection services control the introduction or isolation of pests and plant and animal diseases. Compulsory grades or quality standards for many products are established by law.

The most important of the Acts passed by the Federal Parliament in recent years to assist the farmer are:—

*Agricultural Prices Support Act, 1944.*—This Act permits the Federal Government to stabilize the price of any agricultural product, except wheat, by outright purchase or by underwriting the market through guarantees or deficiency payments.

*Agricultural Products Board Act, 1951.*—This Act authorizes the establishment of a Board to buy, sell, export and import agricultural products when directed by the Governor in Council.

*The Agricultural Products Co-operative Marketing Act, 1939.*—The Act aids farmers in pooling the returns from the sale of their products by guaranteeing initial payments.

*Agricultural Products Marketing Act, 1949.*—Under this Act, provincial marketing legislation may be applied to cover the marketing of agricultural products outside the province and in export trade.

*Prairie Farm Rehabilitation Act, 1935.*—This Act provides for the rehabilitation of drought and soil-drifting areas of the Prairie Provinces. Over 400,000 sq. miles located in southwestern Manitoba, southern Saskatchewan and southeastern Alberta are under development, the program including irrigation, land utilization and promotion of better farming practices.

*Land Reclamation.*—While operations under the above Act are confined to the Prairie Provinces, land reclamation and development work is being carried out elsewhere. Several projects relating to the settlement of veterans have been undertaken in British Columbia and assistance has been granted to the Maritime Provinces for emergency repairs of the protective dykes in the coastal marshland areas. The Maritime Marshland Rehabilitation Act, 1948, provides for dykeland reconstruction with provincial co-operation.

*Prairie Farm Assistance Act, 1939.*—Under this Act the Federal Government makes cash payments each year to farmers in areas within the Prairie Provinces which have had low crop yields because of drought or other causes. The maximum amount payable on any one farm is \$500, and contributory payments are made by the farmers in the form of a levy of 1 p.c. on the value of all grains marketed. As at Sept. 23, 1952, \$141,822,502 had been paid out in benefits and \$64,356,488 collected from the levy (July 31, 1952).

*Prairie Grain Producers' Interim Financing Act, 1951.*—This Act provides short-term credit to grain producers in the Prairie Provinces who, because of congested delivery points or inability to complete harvesting, are in need of credit until their grain can be delivered. Individual advances may be made to a maximum of \$1,000.

*Potato Warehouses.*—A policy was inaugurated in 1947 whereby the Federal Department of Agriculture provides cash assistance in respect of potato warehouses constructed by co-operative associations. The associations provide an agreed amount and the Federal Government and the provincial government concerned share the remainder.



*Cheese and Cheese Factories.*—The Cheese and Cheese Factory Improvement Act was passed in 1939 to encourage the improvement of cheese and cheese factories by the payment of a quality premium and financial assistance in factory improvement.

*Farm Credit.*—The Canadian Farm Loan Board at present carries on lending operations throughout Canada. Loans may be granted for farm improvements, including the erection of buildings, the purchase of live stock and equipment, farm operating expenses, the purchase of farm lands and the refinancing of existing farm indebtedness. Second-mortgage loans cannot be made for the purpose of purchasing farm lands. For intermediate-term credit, the Federal Parliament amended the Bank Act (Aug. 9, 1944) and passed a "companion" Act, the Farm Improvement Loans Act, 1944.

The main forms of financial assistance provided at the present time by the Federal Government to farmers for housing purposes include: the Canadian Farm Loan Board outlined above, the National Housing Act, the Farm Improvement Loans Act, and the Veterans' Land Act.

## • Statistics of Agriculture

### *Income of Farm Operators*

During 1951, Canadian farm operators (excluding Newfoundland) realized from their farming operations a net income of \$2,221,231,000. This figure, the highest yet recorded, was 53 p.c. above the estimate of \$1,451,705,000 for 1950 and 32 p.c. above the previous high of \$1,681,563,000



Cheddar cheese, creamy butter and dry skimmed milk, for both the export and the domestic markets, are graded by Federal Government graders.



realized in 1948. The significant advance in 1951 over 1950 was the net result of a substantial increase of 32 p.c. in gross farm income and a lesser increase of 8 p.c. in farm operating expenses, including depreciation charges. Gross farm income in 1951 reached an all-time high of \$3,608,581,000 as a result of new high records being established for returns from the sale of farm products and income in kind, and a near record for the value of year-end changes in farm-held stocks of grains and live stock. Income in kind includes the value of that produce grown by farm operators and consumed in the farm home plus an imputed rental value of the farm dwellings.

### *Net Income of Farm Operators from Farming Operations, 1949-51*

| Item                                                                | 1949             | 1950             | 1951             |
|---------------------------------------------------------------------|------------------|------------------|------------------|
|                                                                     | \$'000           | \$'000           | \$'000           |
| 1. Cash income.....                                                 | 2,486,598        | 2,219,642        | 2,825,511        |
| 2. Income in kind.....                                              | 387,551          | 383,478          | 429,406          |
| 3. Value of changes in inventory.....                               | -71,655          | 130,729          | 353,664          |
| <b>4. Gross Income (Items 1 + 2 + 3).....</b>                       | <b>2,802,494</b> | <b>2,733,849</b> | <b>3,608,581</b> |
| 5. Operating expenses and depreciation charges...                   | 1,179,618        | 1,295,950        | 1,397,706        |
| 6. Net income, excluding supplementary payments (Items 4-5).....    | 1,622,876        | 1,437,899        | 2,210,875        |
| 7. Supplementary payments.....                                      | 17,628           | 13,806           | 10,356           |
| <b>8. Net Income of Farm Operators from Farming Operations.....</b> | <b>1,640,504</b> | <b>1,451,705</b> | <b>2,221,231</b> |

Annual estimates of cash income from the sale of farm products, the most important income component of net income, represents receipts from all products sold off farms valued at prices received by farmers. The estimates include those federal and provincial government payments that farmers receive as subsidies to prices, but they do not include the supplementary payments made under the provisions of the Prairie Farm Assistance Act. For 1951 this cash income, including grain equalization and participation payments for previous years' crops, was estimated at \$2,825,511,000, 27 p.c. above the 1950 level and 14 p.c. higher than the former record of \$2,486,598,000 set in 1949. Contributing to the high level of cash receipts in 1951 were very large grain participation and adjustment payments made on previous years' western grain crops. During the year the record total of \$312,880,000 was paid to prairie farmers in connection with the final payment on the 1945-50 Canada-United Kingdom wheat pool and the interim and final payments on the 1950 crops of wheat, oats and barley. Spring deliveries of grains in the Prairie Provinces were also unusually high in 1951 as a result of the larger crops in 1950 and the unfavourable weather conditions that hindered harvesting and normal deliveries during the fall months.

The value of year-end inventory changes of farm-held grains and live stock amounted to \$353,664,000 as compared with the estimated value of \$130,729,000 for 1950 and the record high of \$353,949,000 for 1942. The high year-end inventories for 1951 resulted from a general build-up of the live-stock population and a huge carry-over of grains in the Prairie Provinces. Bumper grain crops in Western Canada coupled with adverse harvesting

The English Yorkshire hog has recently gained much popularity in Canada. It is an excellent bacon type and breeders are finding a ready market for registered progeny at good prices.



conditions and delayed marketings provided a substantial accumulation of both threshed and unthreshed grains on western farms at the end of the year. Estimates of grain inventories at the end of 1951 include both threshed and unthreshed grains.

All items included in farm operating expenses were higher in 1951 than in 1950 and total expenses including depreciation charges were estimated at \$1,397,706,000 as compared with \$1,295,950,000 for 1950. Larger crops and higher values per acre of farm land contributed to increased rental payments, both cash and in kind. Although 1951 wage rates were about 13 p.c. higher than in 1950, the labour force employed in agriculture was smaller. Larger interest payments on indebtedness resulted in part from an increase in mortgages and the larger amounts of money made available to farmers under the Farm Improvement Loans Act. Continued mechanization of farms, especially with power equipment, has meant further rises in farmers' total outlay for operation and maintenance of machinery. Increased expenditures for fertilizers reflect larger quantities used at higher prices.

#### Cash Income from the Sale of Farm Products, by Provinces, 1949-51

| Province                  | 1949             | 1950             | 1951             |
|---------------------------|------------------|------------------|------------------|
|                           | \$'000           | \$'000           | \$'000           |
| Prince Edward Island..... | 20,680           | 21,799           | 26,820           |
| Nova Scotia.....          | 35,262           | 39,452           | 45,249           |
| New Brunswick.....        | 42,846           | 46,858           | 49,410           |
| Quebec.....               | 344,488          | 361,005          | 433,360          |
| Ontario.....              | 678,252          | 678,483          | 793,726          |
| Manitoba.....             | 245,246          | 195,408          | 260,654          |
| Saskatchewan.....         | 566,062          | 408,288          | 626,627          |
| Alberta.....              | 452,453          | 368,007          | 470,366          |
| British Columbia.....     | 101,309          | 100,342          | 119,299          |
| <b>Totals.....</b>        | <b>2,486,598</b> | <b>2,219,642</b> | <b>2,825,511</b> |

## Cash Income from the Sale of Farm Products, by Sources, 1951

| Source                                    | Cash Income | Source                                     | Cash Income      |
|-------------------------------------------|-------------|--------------------------------------------|------------------|
|                                           | \$'000      |                                            | \$'000           |
| Grains, seeds and hay.....                | 916,223     | Miscellaneous farm products....            | 52,769           |
| Vegetables and other field crops....      | 163,205     | Forest products sold off farms....         | 85,354           |
| Live stock.....                           | 1,029,369   | Fur farming.....                           | 8,735            |
| Dairy products.....                       | 373,611     |                                            |                  |
| Fruits.....                               | 42,686      |                                            |                  |
| Eggs, wool, honey and maple products..... | 153,559     | <b>Cash Income from Farm Products.....</b> | <b>2,825,511</b> |

## Farm Prices

The annual index of farm prices of agricultural products for 1951 was estimated at an all-time high of 296·8, thirty points above the previous high of 260·8 set in 1950. The increase of approximately 12 p.c. was attributable to higher prices for potatoes, dairy products, poultry and eggs, and a very substantial rise in the prices of live stock. With the exception of the month of January, the index of farm prices was considerably lower during the first eleven months of 1952 than for the corresponding period of 1951. Cattle prices, which started to decline at the beginning of 1952, dropped still lower after the Saskatchewan outbreak of foot-and-mouth disease in February and the imposition by the United States of an embargo on the imports of Canadian cattle. Hog, lamb and egg prices, too, have been significantly lower this year.

## Index Numbers of Farm Prices of Agricultural Products, 1947-52

(1935-39=100)

| Year         | P.E.I. | N.S.  | N.B.  | Que.  | Ont.  | Man.  | Sask. | Alta. | B.C.  | Total |
|--------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1947 Av..... | 180·1  | 184·6 | 199·6 | 213·7 | 202·1 | 225·9 | 226·1 | 231·9 | 207·1 | 215·8 |
| 1948 Av..... | 236·6  | 214·1 | 250·4 | 265·6 | 258·6 | 259·6 | 247·1 | 262·9 | 240·2 | 255·8 |
| 1949 Av..... | 204·1  | 210·5 | 220·5 | 261·3 | 257·8 | 262·8 | 248·8 | 265·6 | 245·1 | 255·4 |
| 1950 Av..... | 189·6  | 206·5 | 216·4 | 260·9 | 265·1 | 274·4 | 251·5 | 276·1 | 244·3 | 260·8 |
| 1951 Av..... | 235·8  | 243·6 | 250·4 | 304·8 | 315·2 | 301·6 | 268·7 | 308·0 | 288·4 | 296·8 |
| 1951—        |        |       |       |       |       |       |       |       |       |       |
| Jan.....     | 184·8  | 217·2 | 221·3 | 280·6 | 285·4 | 283·3 | 251·9 | 296·3 | 255·8 | 274·6 |
| Feb.....     | 199·9  | 225·1 | 224·7 | 293·0 | 301·8 | 292·2 | 258·8 | 301·9 | 268·7 | 285·2 |
| Mar.....     | 203·3  | 228·5 | 230·6 | 303·1 | 313·7 | 302·3 | 265·5 | 309·8 | 272·9 | 294·2 |
| Apr.....     | 207·4  | 231·9 | 226·9 | 301·8 | 310·3 | 299·5 | 265·2 | 306·4 | 273·1 | 292·1 |
| May.....     | 207·9  | 235·4 | 229·6 | 303·5 | 311·6 | 298·6 | 265·1 | 307·8 | 271·6 | 293·0 |
| June.....    | 217·0  | 235·5 | 227·3 | 310·3 | 321·0 | 308·4 | 272·6 | 316·4 | 272·7 | 300·7 |
| July.....    | 225·5  | 244·9 | 238·9 | 319·4 | 334·4 | 311·0 | 273·6 | 319·7 | 292·3 | 308·2 |
| Aug.....     | 244·1  | 246·5 | 243·0 | 311·0 | 325·0 | 317·6 | 281·6 | 319·1 | 289·4 | 306·8 |
| Sept.....    | 243·0  | 250·7 | 253·6 | 308·6 | 323·2 | 310·0 | 280·6 | 317·0 | 310·7 | 305·9 |
| Oct.....     | 256·9  | 255·8 | 267·5 | 306·5 | 317·9 | 302·1 | 276·1 | 307·7 | 316·0 | 301·4 |
| Nov.....     | 312·8  | 275·4 | 320·5 | 308·0 | 317·4 | 297·5 | 269·0 | 298·9 | 319·4 | 300·1 |
| Dec.....     | 327·3  | 276·3 | 320·9 | 312·2 | 320·1 | 296·9 | 264·1 | 295·1 | 318·3 | 299·8 |
| 1952—        |        |       |       |       |       |       |       |       |       |       |
| Jan.....     | 343·9  | 283·6 | 329·3 | 312·1 | 313·6 | 293·1 | 261·7 | 290·7 | 315·3 | 296·5 |
| Feb.....     | 319·4  | 274·2 | 318·2 | 305·6 | 297·8 | 281·5 | 252·3 | 279·5 | 308·9 | 284·9 |
| Mar.....     | 349·1  | 279·2 | 355·3 | 299·7 | 290·6 | 277·3 | 247·7 | 268·8 | 303·9 | 279·7 |
| Apr.....     | 394·9  | 287·0 | 377·0 | 293·4 | 285·4 | 271·4 | 244·1 | 265·6 | 301·8 | 276·5 |
| May.....     | 414·7  | 288·2 | 386·2 | 284·0 | 278·7 | 259·0 | 235·6 | 255·5 | 301·5 | 269·0 |
| June.....    | 493·8  | 307·6 | 433·3 | 291·6 | 289·8 | 260·0 | 237·4 | 258·0 | 302·8 | 276·4 |
| July.....    | 348·4  | 272·6 | 370·8 | 291·5 | 293·2 | 264·8 | 241·5 | 259·7 | 308·3 | 275·6 |
| Aug.....     | 378·9  | 271·5 | 376·9 | 283·5 | 293·4 | 231·8 | 209·9 | 231·0 | 295·8 | 259·6 |
| Sept.....    | 309·8  | 259·8 | 308·6 | 278·3 | 279·9 | 226·5 | 206·9 | 227·4 | 290·0 | 250·6 |
| Oct.....     | 294·6  | 248·9 | 297·4 | 272·4 | 272·7 | 222·6 | 200·0 | 218·7 | 281·7 | 243·3 |
| Nov.....     | 293·8  | 248·0 | 293·8 | 275·8 | 273·1 | 223·8 | 201·0 | 220·0 | 281·2 | 244·3 |



## Field Crops

In 1952 Canadian farmers harvested record crops of wheat, barley and soybeans and near-record crops of rye, sugar beets and shelled corn. Excellent weather conditions prevailed in Western Canada throughout the season and, although unfavourable weather conditions interfered with seeding, plant growth and harvesting in many parts of Eastern Canada, yields of practically all principal grain crops in Ontario, Quebec and the Maritimes were somewhat larger than average but were below those of 1951.

The bumper crop harvested in Western Canada in the fall of 1952, following the unprecedented quantity of wintered-over grain harvested in the spring, will continue to place an exceptionally heavy load on grain storage and handling facilities during 1952-53. However, the precedent set by the outstandingly successful movement of the large 1951 western grain crop, which included some 275,000,000 bu. of out-of-condition grain requiring specialized treatment, can well be emulated during the 1952-53 crop year.

Records were set for both farm marketings and exports in 1951-52. Preliminary data indicate that combined marketings of wheat, oats, barley, rye and flaxseed in the Prairie Provinces during the twelve months ended July 31, 1952 totalled 718,000,000 bu. while exports of the same grains (including wheat flour, oatmeal and rolled oats) reached 506,100,000 bu. Notwithstanding this record disappearance, carryover stocks of the five grains at July 31, 1952, amounted to almost 405,000,000 bu., 63,000,000 bu. more than on the same date of 1951.

Exports of Canadian wheat, oats and barley continued high during the first half of 1952-53. In addition, forward sales were very heavy and it was evident that transportation and handling facilities, rather than lack of

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*Agriculture is the basic industry of Saskatchewan. Almost 62,000,000 acres—about 40 p.c. of its total area—are occupied as farms and approximately 23,000,000 acres are sown to cereal crops each year.*



markets, would be the main factors limiting the export movement. However, handling of the 1952 crop will be facilitated by the low proportion of grain grading tough or damp—a situation in sharp contrast to that existing during the two previous crop years.

**Wheat.**—Canada's 1952 wheat crop, estimated in November at 687,900,000 bu., exceeded by 121,200,000 bu. the previous record of 566,700,000 set in 1928. The crop of the Prairie Provinces was placed at 664,000,000 bu., compared with 529,000,000 bu. in 1951 and the previous record of 545,000,000 bu. in 1928. The total 1952 Canadian wheat crop was harvested from a seeded area of 26,000,000 acres averaging an estimated 26.5 bu. per acre—the Prairie Provinces accounted for 25,200,000 acres averaging 26.3 bu. per acre. About 53 p.c. of the crop is expected to grade No. 1 or No. 2 Northern, and another 37 p.c. No. 3 or No. 4 Northern.

Potential supplies of Canadian wheat for the 1952-53 crop year amount to 900,900,000 bu., comprised of carryover stocks of 213,000,000 bu., almost all of which was of low quality, and the new crop estimated at 687,900,000 bu. This estimate is 159,000,000 bu. greater than for 1951-52 and second only to the record total of 980,400,000 bu. for 1942-43.

Exports of wheat as grain during 1951-52 totalled 304,700,000 bu., an amount 65 p.c. above the 1950-51 exports of 185,000,000 bu. and exceeded only by the record 354,400,000 bu. exported in 1928-29; an additional 51,000,000 bu. was exported in the form of wheat flour. While the bulk of export sales continued to be made under the International Wheat Agreement (I.W.A.), substantial quantities of Class II wheat, which is sold outside the provisions of the Agreement, were also exported. It is of interest to note that some 31,400,000 bu. of Class II wheat, almost all of which was of feed quality, were exported to the United States during the crop year. Canadian sales reported under the I.W.A. for 1951-52 amounted to 241,600,000 bu. with 124,600,000 bu. or about 52 p.c. of the total going to the United Kingdom. Altogether, Canada sold wheat and/or flour to all but five of the 42 importing countries participating in the multilateral pact.

Sales of wheat for domestic use during the crop year were made at the same prices as those under I.W.A. Prices\* throughout the crop year remained at the I.W.A. maximum of \$1.80 (U.S. funds) plus a carrying charge of six cents per bu. With the progressive strengthening of the Canadian dollar relative to the United States dollar, the I.W.A. price of wheat in Canadian currency gradually declined from the level of \$1.90 at the beginning of the crop year, Aug. 1, 1951. On Mar. 11, 1952, the price dropped below \$1.80 for the first time and on July 4 the crop-year low of \$1.73½ per bu. was reached.

Marketing of Western Canadian wheat during 1951-52 was again conducted by the Canadian Wheat Board on a one-year pool basis with the initial payment set at \$1.40 per bu. Effective Feb. 1, 1952, the initial payment was increased to \$1.60 per bu. and an adjustment payment of 20 cents per bu. was made on all wheat delivered to the Canadian Wheat Board during the Aug. 1-Jan. 31 period. Final payments, as announced on Nov. 15, 1952, brought the total price realized by producers, after deducting certain charges but exclusive of the 1-p.c. Prairie Farm Assistance Act levy, to \$1.8357 per bu. for No. 1 Northern.

\* All wheat prices quoted are for No. 1 Northern, basis in store Fort William-Port Arthur or Vancouver.

Similar marketing arrangements are in effect for the 1952-53 crop year, with the initial payment again set at \$1.40 per bu. Sales of wheat for domestic use are again on the same price basis as those under I.W.A., with all sales being made at the maximum level of \$1.80 (U.S. funds) plus 6 cents per bu. carrying charge. Canada's I.W.A. sales quota for 1952-53 amounts to 235,000,000 bu. or about 40 p.c. of the total guaranteed quantities of 580,900,000 bu. involved in the Agreement.

### *Production, Imports and Exports of Wheat, Years Ended July 31, 1944-53*

NOTE.—Wheat flour has been converted into bushels of wheat at the uniform average rate of  $4\frac{1}{2}$  bu. to the barrel of 196 lb. of flour.

| Year ended July 31— | Production <sup>1</sup> | Imports of<br>Wheat<br>and Flour | Exports of<br>Wheat<br>and Flour |
|---------------------|-------------------------|----------------------------------|----------------------------------|
|                     | '000 bu.                | bu.                              | bu.                              |
| 1944.....           | 284,460                 | 432,931                          | 343,755,319                      |
| 1945.....           | 416,635                 | 404,547                          | 342,945,515                      |
| 1946.....           | 318,512                 | 74,765                           | 343,185,751                      |
| 1947.....           | 413,725                 | 15,584                           | 239,420,837                      |
| 1948.....           | 341,758                 | 824,677                          | 194,982,342                      |
| 1949.....           | 386,345                 | 288,881                          | 232,329,335                      |
| 1950.....           | 371,406                 | 4,059                            | 225,136,785                      |
| 1951.....           | 461,664                 | 11,884                           | 240,960,846                      |
| 1952.....           | 552,657                 | 17,560                           | 355,825,252                      |
| 1953.....           | 687,923                 | ..                               | ..                               |

<sup>1</sup> Previous year's harvested crop.

**Oats.**—The area seeded to oats in 1952 was estimated at 11,100,000 acres, the 7-p.c. decrease from the 1951 acreage being shared by all provinces. The November estimate placed the 1952 crop at 466,100,000 bu., 22,100,000 bu. less than in 1951. Potential supplies of oats for 1952-53, consisting of the July 31 carryover of 104,900,000 bu. and the new crop, amount to 571,000,000 bu. as against 583,400,000 bu. for 1951-52.

Oats ready for  
threshing.





Disposition of the commercial supplies\* of oats for the 1951-52 crop year, which amounted to 162,400,000 bu., made up of the commercial carryover of 35,700,000 bu. and farmers' marketings of 126,700,000 bu., was as follows: exports, including rolled oats and oatmeal in terms of oats, 70,600,000 bu.; domestic utilization, 44,700,000 bu.; and carryover at July 31, 1952, 47,100,000 bu. The United States took 58,600,000 bu. of the 69,600,000 bu. exported in the form of grain. Total domestic disappearance of oats in 1951-52 was tentatively placed at 408,000,000 bu. as against 335,000,000 bu. in 1950-51.

Marketing of Western Canadian oats during 1951-52 was again conducted through a crop-year pool administered by the Canadian Wheat Board. As in the previous crop year, initial payments were made on the basis of 65 cents per bu. for No. 2 C.W. in store Fort William-Port Arthur. Final payments, as announced on Oct. 11, 1952, brought the totals for No. 2 C.W. and No. 1 Feed oats to 83.802 and 77.762 cents per bu., respectively. Similar marketing arrangements are in effect for the 1952-53 current crop year.

Cash prices of oats advanced steadily during the first four months of 1951-52, reaching crop-year peaks in November. While declines occurred in December and again in April following the opening of lake navigation, prices remained fairly steady in the January-March and May-July periods. Monthly average prices of No. 1 Feed oats, as quoted by the Canadian Wheat Board, advanced from 78½ cents per bu. in August 1951 to \$1.03½ in November. By July 1952 the price had dropped to 75½ cents, practically the same level as in July 1951. Prices remained firm during the first four months of 1952-53, advancing from an average of 79½ cents in August to 85½ cents in November, but eased in December when the average was 78½ cents per bu.

**Barley.**—The area seeded to barley in Canada in 1952 was estimated at a record 8,500,000 acres, compared with 7,800,000 acres in 1951. Production was estimated at a record 291,300,000 bu., 46,100,000 bu. greater than 1951 and 32,100,000 bu. more than the previous high of 259,200,000 bu. harvested in 1942. Potential supplies for 1952-53 also reached a peak at 368,300,000 bu., consisting of carryover stocks of 76,900,000 bu. and the new crop.

Commercial supplies of barley for the 1951-52 crop year amounted to 160,800,000 bu., comprised of commercial carryover stocks of 35,600,000 bu. and farmers' marketings of 125,200,000 bu. Disposition of these supplies† was as follows: exports, 69,900,000 bu.; domestic utilization, 35,400,000 bu.; and carryover at July 31, 1952, 55,500,000 bu. Barley exports set an all-time high of 69,900,000 bu., triple those of 1950-51. Leading purchasers, with quantities in millions of bushels, were Belgium (17.6), Japan (15.1), the United States (10.2), the United Kingdom (7.7), and Germany (5.9). Total domestic disappearance of barley during 1951-52 was estimated at 152,000,000 bu. as against 115,000,000 bu. in 1950-51.

The marketing of barley was also carried on through a crop-year pool administered by the Canadian Wheat Board. Initial payments, originally

\* Relatively small quantities of eastern oats may be included in these totals.

† Relatively small quantities of eastern barley may be included in these totals.

made on the basis of 96 cents per bu. for No. 3 C.W. 6-row barley, in store Fort William-Port Arthur, were increased to \$1.16 per bu., effective Mar. 1, 1952, and adjustment payments of 20 cents per bu. were made on all barley delivered during the Aug. 1-Feb. 29 period. Final payments, as announced on Oct. 24, brought the total realized price, after deducting certain charges but exclusive of the 1-p.c. P.F.A.A. levy, to \$1.2933 per bu. for No. 3 C.W. 6-row barley, in store Fort William-Port Arthur.

Cash barley prices during 1951-52 followed a similar pattern to those of oats. Monthly average prices for No. 1 Feed barley advanced from \$1.17 per bu. in August to \$1.43 $\frac{1}{2}$  in November 1951. By July 1952, however, the price had dropped to \$1.15 $\frac{1}{4}$ , the same as in July 1951. During the 1952-53 crop year, prices advanced from an average of \$1.26 $\frac{1}{4}$  in August to \$1.39 $\frac{3}{8}$  in November, largely on the strength of very active domestic and export demand. In December, however, the average dropped to \$1.22 $\frac{1}{4}$  per bushel.

**Rye.**—The combined output of fall and spring rye in 1952 was placed at 24,559,000 bu., the fourth largest crop on record. While the area of 1,257,000 acres seeded was about 12 p.c. greater than in 1951, higher average yields of both spring and fall rye also contributed to the increase over the 1951 crop of 17,600,000 bu. Carryover stocks of 7,700,000 bu., together with the 1952 crop, will give Canada total rye supplies of 32,200,000 bu. in 1952-53 as against 21,000,000 bu. in 1951-52.

Commercial supplies of rye in 1951-52 amounted to 13,500,000 bu., comprised of the commercial carryover of 2,400,000 bu. and farmers' marketings of 11,100,000 bu. Exports of rye, at 6,800,000 bu., were down 27 p.c. from the 1950-51 total of 9,400,000 bu. The United States took 2,300,000 bu., slightly more than one-third of the total, while Germany and Norway purchased 1,100,000 bu. and 1,000,000 bu., respectively.

Prices of No. 2 C.W. rye on the Winnipeg Grain Exchange during 1951-52 advanced from the crop-year low of \$1.68 $\frac{3}{8}$  per bu. on Aug. 18 to a peak of \$2.23 $\frac{3}{8}$  on Dec. 12. After that date prices moved generally downwards although fairly sharp recoveries took place in March and June. Current crop-year prices dropped rather sharply in August, then remained relatively stable at just over \$1.70 per bu. until mid-October, when an upward trend carried the price to \$1.87 $\frac{5}{8}$  on Nov. 13. After that date, prices again moved downward, falling to \$1.68 $\frac{1}{4}$  per bu. on Dec. 31.

**Flaxseed.**—Canada's 1952 production of flaxseed is estimated at almost 13,000,000 bu., compared with 9,900,000 bu. in 1951. Although acreage increased by 4 p.c., most of the increase in production was due to a higher average yield per acre, estimated at 10.7 bu. as against 8.5 in 1951. All but 1,000,000 bu. of the 1952 flaxseed crop was grown in the Prairie Provinces, with Manitoba's estimated 5,700,000 bu. accounting for 44 p.c. of the Canadian total. Total supplies for 1952-53, consisting of the new crop together with the carryover of 2,400,000 bu., amount to 15,400,000 bu. as against 11,100,000 bu. in 1951-52.

Prices for flaxseed, which is traded on the open market, rose steadily in the autumn of 1951, reaching a monthly average of \$4.91 $\frac{7}{8}$  in December

for No. 1 C.W. flaxseed, basis in store Fort William-Port Arthur. Prices fell rather sharply during the next few months to the crop-year low of \$3.63½ in April, although there was some recovery in the May-July period. During the first five months of the 1952-53 crop year, prices eased considerably, falling from \$3.99 on Aug. 15 to \$3.27½ on Dec. 31.

### *Acres, Production and Values of Field Crops, 1951 and 1952*

| Crop                | Revised Estimate 1951 Crops |            |                               | Third Estimate 1952 Crops |            |                               |
|---------------------|-----------------------------|------------|-------------------------------|---------------------------|------------|-------------------------------|
|                     | Area                        | Production | Gross Farm Value <sup>1</sup> | Area                      | Production | Gross Farm Value <sup>2</sup> |
|                     | '000 acres                  | '000 bu.   | \$'000                        | '000 acres                | '000 bu.   | \$'000                        |
| Wheat.....          | 25,254                      | 552,657    | 855,137                       | 25,995                    | 687,923    | 813,588 <sup>3</sup>          |
| Oats.....           | 11,897                      | 488,191    | 369,296                       | 11,062                    | 466,123    | 278,467 <sup>3</sup>          |
| Barley.....         | 7,840                       | 245,218    | 269,951                       | 8,477                     | 291,337    | 233,492 <sup>3</sup>          |
| Rye.....            | 1,127                       | 17,647     | 27,575                        | 1,257                     | 24,559     | 36,838                        |
| Mixed grains.....   | 1,524                       | 68,509     | 69,485                        | 1,570                     | 62,813     | 59,820                        |
| Corn, shelled.....  | 314                         | 15,915     | 28,527                        | 339                       | 19,722     | 30,896                        |
| Buckwheat.....      | 124                         | 2,916      | 3,930                         | 124                       | 2,688      | 3,474                         |
| Peas, dry.....      | 37                          | 745        | 2,084                         | 43                        | 884        | 2,364                         |
| Beans, dry.....     | 59                          | 1,233      | 5,173                         | 60                        | 1,298      | 5,221                         |
| Potatoes.....       | 285                         | 48,355     | 98,077                        | 294                       | 58,865     | 114,618                       |
| Flaxseed.....       | 1,158                       | 9,897      | 38,616                        | 1,206                     | 12,961     | 42,353                        |
| Soybeans.....       | 155                         | 3,843      | 10,568                        | 172                       | 4,128      | 11,063                        |
|                     |                             | '000 lb.   |                               |                           | '000 lb.   |                               |
| Sunflower seed..... | 22                          | 6,450      | 258                           | 4                         | 2,345      | 117                           |
| Rapeseed.....       | 8                           | 7,125      | 249                           | 18                        | 15,900     | 547                           |
|                     |                             | '000 cwt.  |                               |                           | '000 cwt.  |                               |
| Field roots.....    | 46                          | 13,807     | 15,315                        | 45                        | 13,933     | 13,304                        |
|                     |                             | '000 tons  |                               |                           | '000 tons  |                               |
| Tame hay.....       | 10,538                      | 19,484     | 297,238                       | 10,682                    | 19,090     | 266,941                       |
| Fodder corn.....    | 388                         | 3,607      | 17,942                        | 370                       | 3,842      | 17,382                        |
| Sugar beets.....    | 93                          | 965        | 14,443                        | 93                        | 1,020      | 9,691 <sup>3</sup>            |

<sup>1</sup>Revised; includes effect of final payments on Western Canadian wheat, oats and barley, and on sugar beets.

<sup>2</sup>Preliminary; based on prices received by farmers during the August-November period only.

<sup>3</sup>Based on initial payments only for Western Canadian wheat, oats and barley, and for sugar beets; subject to upward revision when interim and final payments become known.

### *Live Stock*

The number of cattle, estimated at 9,172,700 at June 1, 1952, increased 10 p.c. over the number on the same date of 1951. Milk cows increased 2 p.c., rising slightly in all provinces except Manitoba and Saskatchewan; other cattle, including calves, increased about 14 p.c. Sheep numbers in Canada as a whole increased 8 p.c., particularly in Alberta, Saskatchewan and British Columbia where the advances were 17 p.c., 14 p.c. and 13 p.c., respectively. This increase was in sharp contrast to the steady decline that had taken place for several successive years. The 5,741,000 hogs on farms on June 1, 1952, was 17 p.c. higher than on the same date of the previous year. Increases took place in all provinces, with the June inventory 23 p.c. higher in Western Canada and 13 p.c. higher in Eastern Canada. The number of horses continued to decrease, being 1,180,000 in 1952 compared with 1,303,800 in 1951.



## Live Stock on Farms, by Provinces, as at June 1, 1951 and 1952

| Year and Province      | Milk Cows        | Other Cattle     | Hogs             | Sheep and Lambs  | Horses           |
|------------------------|------------------|------------------|------------------|------------------|------------------|
| <b>1951—</b>           |                  |                  |                  |                  |                  |
| P.E.I.....             | 38,900           | 59,000           | 72,500           | 34,400           | 21,300           |
| N.S.....               | 79,000           | 87,200           | 48,200           | 95,400           | 26,000           |
| N.B.....               | 82,400           | 79,500           | 78,400           | 55,200           | 31,000           |
| Que.....               | 895,500          | 745,300          | 1,108,300        | 316,400          | 232,900          |
| Ont.....               | 922,100          | 1,543,800        | 1,755,500        | 360,200          | 260,600          |
| Man.....               | 218,500          | 452,700          | 338,000          | 65,500           | 130,900          |
| Sask.....              | 306,900          | 968,000          | 533,300          | 136,100          | 303,900          |
| Alta.....              | 277,600          | 1,285,400        | 930,700          | 330,500          | 261,100          |
| B.C.....               | 82,900           | 238,400          | 49,400           | 67,500           | 36,100           |
| <b>Totals, 1951...</b> | <b>2,903,800</b> | <b>5,459,300</b> | <b>4,914,300</b> | <b>1,461,200</b> | <b>1,303,800</b> |
| <b>1952—</b>           |                  |                  |                  |                  |                  |
| P.E.I.....             | 41,000           | 63,900           | 77,000           | 36,200           | 19,700           |
| N.S.....               | 83,000           | 102,700          | 51,000           | 83,700           | 24,400           |
| N.B.....               | 86,000           | 91,900           | 83,000           | 48,800           | 29,800           |
| Que.....               | 937,000          | 871,000          | 1,312,000        | 337,100          | 221,000          |
| Ont.....               | 959,000          | 1,778,000        | 1,937,000        | 389,700          | 218,700          |
| Man.....               | 209,000          | 476,000          | 399,000          | 68,000           | 113,500          |
| Sask.....              | 289,000          | 1,093,000        | 646,000          | 155,000          | 279,500          |
| Alta.....              | 280,000          | 1,474,000        | 1,170,000        | 387,000          | 239,700          |
| B.C.....               | 84,000           | 254,200          | 66,000           | 76,500           | 34,100           |
| <b>Totals, 1952...</b> | <b>2,968,000</b> | <b>6,204,700</b> | <b>5,741,000</b> | <b>1,582,000</b> | <b>1,180,400</b> |

*Alberta ranch hands herding beef cattle into a corral in preparation for shipment.*



## Dairying

**Milk.**—Milk production in 1952 amounted to 16,784,982,000 lb., 2 p.c. above the estimated 16,400,000,000-lb. production in 1951. The increase, which began early in the year, was accounted for largely by the fact that greater numbers of cows were being held on farms for milk production. On June 1, 1952, the holdings of dairy heifers were 2 p.c. above the June 1, 1951, total. Excellent feed supplies from the 1951 harvest and satisfactory pasture conditions during the summer months of 1952 maintained milk production per cow at approximately the same level as in the previous year.

Changes occurred in milk utilization in 1952 when a diversion from cheese to creamery butter and ice cream was shown. Cheddar cheese production declined 25 p.c., while creamery butter and ice cream increased 9 p.c. and 7 p.c., respectively, as compared with 1951. Sales of fluid milk and cream were up about 3 p.c. and the quantity of milk used in the manufacture of concentrated milk products also increased slightly over the previous year.

**Butter and Cheese.**—Creamery butter production declined about 33,000,000 lb. between 1947 and 1951; 1952 production amounted to approximately 281,000,000 lb., an increase of about 9 p.c. over 1951 but 31,000,000 lb. lower than the peak production of 1943. On the other hand, dairy butter production, which has declined steadily since 1948, suffered a 10-p.c. reduction in 1952. Output of creamery, dairy and whey butter combined totalled 324,999,000 lb. in 1952. Because of a shortage of butter the increased quantity available in 1952 will be largely required to meet current needs. The per capita domestic disappearance of butter in 1951, including 17,488,000 lb. imported, was 22.64 lb. compared with 28.73 lb. per capita in 1948. The introduction of margarine in 1949 resulted in a reduction in the amount of butter used for human consumption; the per capita consumption of that product in 1951 amounted to 7.44 lb.

Because of exchange difficulties arising from the shortage of dollars in the United Kingdom, there has been a great decline in the shipments of Canadian cheese to that market during the past few years and therefore a decline in production. In 1952, only 66,574,000 lb. of cheddar were produced compared with 88,784,000 lb. in 1951, 146,099,000 lb. in 1946 and 206,215,000 lb. in 1942, the all-time high point. The Canadian Government did not make a contract with the Government of the United Kingdom in 1951, although shipments amounting to 27,805,900 lb. were made under a contract executed by the Ontario Cheese Producers Association. Of that amount, 25,633,000 lb. came from Ontario and the remainder from Quebec. In 1952, the Association operated under the Agricultural Products Co-operative Marketing Act of Canada under the provisions of which the Federal Government guaranteed an initial payment of 24 cents per lb. to producers. Furthermore, the Ontario Government assisted cheese producers by paying 6 cents per lb. on that part of the cheese make purchased by the Association in 1952. The domestic wholesale price of first-grade Ontario white cheese at Montreal averaged 31.25 cents per lb. in 1952 as compared with 37 cents in 1951. The export price in 1951 was 32 cents f.o.b. boat as compared with the Association's domestic price of 36 cents.

**Concentrated Milk and Ice Cream.**—The production of concentrated milk products in 1952 amounted to 471,475,000 lb. compared with 435,762,000 lb. in 1951. Such products include whole-milk products (evaporated, condensed and powdered milk together with products of a variable fat content not otherwise classified) and milk by-products (evaporated and condensed skim milk, powdered skim milk, buttermilk, whey and casein). Evaporated milk, the most important product in the first group, comprising about 70 p.c. of the total in terms of milk, advanced from a production of 290,443,000 lb. in 1951

*Dairy farms produced approximately 18,000,000,000 lb. of milk in 1952, 52 p.c. of which was used for factory-produced dairy products, 26 p.c. was sold in fluid form and 22 p.c. was used on the farms.*





to 305,715,000 lb. in 1952. Skim-milk powder, the most important milk by-product, advanced from 52,748,000 lb. in 1951 to 86,778,000 lb. in 1952. The production of ice cream at 27,238,000 gal. was 7 p.c. higher than the amount manufactured in 1951.

**Income and Values.**—Farm income from dairying in 1952 amounted to \$443,438,000; the estimated yield from cash sales was \$380,945,000 while income in kind amounted to \$62,493,000, made up principally of the value of dairy butter, milk and cream consumed on the farm. With the single exception of fluid milk, the prices of all products sold off farms declined in 1952. The average price of fluid milk was \$4.39 per cwt. as compared with \$4.09 in 1951, while the average price of cheese milk was \$2.15 per cwt. against \$2.72. Creamery butter fat declined from 65.4 cents per lb. in 1951 to 61.0 cents in 1952.

### *Dairy Production, by Economic Areas, 1948-51*

| Economic Area<br>and Year           | Milk           |                               | Manufactured Milk Products <sup>1</sup> |          |                      |              |
|-------------------------------------|----------------|-------------------------------|-----------------------------------------|----------|----------------------|--------------|
|                                     | Fluid<br>Sales | Total<br>Milk Pro-<br>duction | Butter                                  |          | Cheddar<br>Cheese    | Ice<br>Cream |
|                                     |                |                               | Creamery                                | Dairy    |                      |              |
|                                     | '000 lb.       | '000 lb.                      | '000 lb.                                | '000 lb. | '000 lb.             | '000 gal.    |
| Maritimes <sup>2</sup> , . . . 1948 | 226,316        | 1,079,889                     | 17,854                                  | 8,881    | 1,466                | 2,557        |
| 1949                                | 229,553        | 1,095,337                     | 18,809                                  | 7,582    | 1,619                | 2,573        |
| 1950                                | 234,981        | 1,065,793                     | 17,873                                  | 6,882    | 1,563                | 2,324        |
| 1951                                | 243,244        | 1,059,312                     | 16,872                                  | 6,825    | 2,143                | 2,676        |
| Que. and Ont... 1948                | 2,838,889      | 10,348,460                    | 171,510                                 | 19,854   | 81,756               | 15,151       |
| 1949                                | 2,873,262      | 10,570,555                    | 168,220                                 | 15,557   | 109,806              | 14,617       |
| 1950                                | 2,921,474      | 10,305,682                    | 156,187                                 | 14,418   | 90,782               | 14,201       |
| 1951                                | 2,969,953      | 10,376,865                    | 158,926                                 | 15,976   | 78,654               | 14,576       |
| Prairies..... 1948                  | 639,331        | 4,668,437                     | 91,939                                  | 32,511   | 5,372                | 5,006        |
| 1949                                | 653,436        | 4,526,519                     | 88,165                                  | 28,455   | 4,992                | 5,184        |
| 1950                                | 665,995        | 4,410,030                     | 82,732                                  | 24,561   | 4,745                | 4,846        |
| 1951                                | 687,822        | 4,331,349                     | 79,140                                  | 22,675   | 3,906                | 5,314        |
| B.C..... 1948                       | 320,381        | 633,576                       | 4,326                                   | 1,599    | 431                  | 2,492        |
| 1949                                | 327,502        | 650,934                       | 4,611                                   | 1,258    | 498                  | 2,416        |
| 1950                                | 334,577        | 667,355                       | 4,672                                   | 1,036    | 564                  | 2,451        |
| 1951                                | 325,859        | 624,472                       | 2,666                                   | 924      | 557                  | 2,892        |
| Totals <sup>3</sup> , ..... 1948    | 4,024,917      | 16,730,362                    | 285,629                                 | 62,845   | 89,025 <sup>3</sup>  | 25,206       |
| 1949                                | 4,083,753      | 16,843,345                    | 279,805                                 | 52,852   | 116,915 <sup>3</sup> | 24,790       |
| 1950                                | 4,157,027      | 16,448,860                    | 261,464                                 | 46,897   | 97,654 <sup>3</sup>  | 23,822       |
| 1951                                | 4,226,878      | 16,391,998                    | 257,604                                 | 46,400   | 85,260 <sup>3</sup>  | 25,458       |

<sup>1</sup> Concentrated milk products are not shown; total production for Canada was 399,187,000 lb. in 1948, 371,342,000 lb. in 1949, 382,370,000 lb. in 1950 and 434,524,000 lb. in 1951.

<sup>2</sup> Exclusive of Newfoundland.

<sup>3</sup> Total cheese production amounted to 94,678,000 lb. in 1948, 121,030,000 lb. in 1949, 102,659,000 lb. in 1950 and 90,615,000 lb. in 1951; these data exclude farm cheese except in 1948 when an estimate of 730,000 lb. was included in the figures given.

### *Poultry and Eggs*

The number of all poultry on farms at June 1, 1952, was estimated at 65,782,000 birds, a decrease of 3 p.c. from the June 1, 1951, figure. The 1952 total included 61,732,000 hens, cocks and chickens, 3,167,000 turkeys, 386,000 geese and 497,000 ducks. The number of domestic fowl decreased by 4 p.c. during the year while turkeys increased 25 p.c., geese 10 p.c. and ducks 14 p.c. Production of poultry-farm products is given in the following table.

# **Farm Poultry-Meat and Farm-Egg Production, by Economic Areas, 1949-51**

| Economic Area<br>and Year | Poultry-Meat Production |                           |                | Egg Production |                           |                    |
|---------------------------|-------------------------|---------------------------|----------------|----------------|---------------------------|--------------------|
|                           | Marketed                | Farm-<br>Home<br>Consumed | Total          | Marketed       | Farm-<br>Home<br>Consumed | Total <sup>1</sup> |
|                           | '000 lb.                | '000 lb.                  | '000 lb.       | '000 doz.      | '000 doz.                 | '000 doz.          |
| Maritimes.... 1949        | 11,483                  | 4,618                     | 16,101         | 18,461         | 5,804                     | 24,539             |
| 1950                      | 8,742                   | 4,092                     | 12,834         | 19,188         | 5,932                     | 25,512             |
| 1951                      | 10,415                  | 4,323                     | 14,738         | 20,381         | 5,711                     | 26,587             |
| Que. and Ont... 1949      | 144,341                 | 24,594                    | 168,935        | 142,263        | 26,600                    | 173,901            |
| 1950                      | 144,637                 | 22,741                    | 167,378        | 142,645        | 27,541                    | 174,326            |
| 1951                      | 170,485                 | 22,399                    | 192,884        | 134,785        | 25,825                    | 166,612            |
| Prairies..... 1949        | 53,819                  | 32,931                    | 86,750         | 67,970         | 19,690                    | 91,195             |
| 1950                      | 48,733                  | 30,011                    | 78,744         | 61,892         | 19,485                    | 83,415             |
| 1951                      | 65,195                  | 29,538                    | 94,733         | 59,443         | 18,510                    | 80,508             |
| B.C..... 1949             | 10,165                  | 2,280                     | 12,445         | 21,471         | 2,289                     | 24,853             |
| 1950                      | 9,452                   | 2,199                     | 11,651         | 19,410         | 1,732                     | 21,920             |
| 1951                      | 15,526                  | 2,418                     | 17,944         | 22,778         | 1,903                     | 25,432             |
| <b>Totals.... 1949</b>    | <b>219,808</b>          | <b>64,423</b>             | <b>284,231</b> | <b>250,165</b> | <b>54,383</b>             | <b>314,488</b>     |
| <b>1950</b>               | <b>211,564</b>          | <b>59,043</b>             | <b>270,607</b> | <b>243,135</b> | <b>54,690</b>             | <b>305,173</b>     |
| <b>1951</b>               | <b>261,621</b>          | <b>58,678</b>             | <b>320,299</b> | <b>237,387</b> | <b>51,949</b>             | <b>299,139</b>     |

<sup>1</sup> Includes eggs sold for hatching and used for hatching on farms.

*Turkey-raising is usually carried on as a specialized enterprise. Here is shown part of a flock of 3,000 birds on a farm on Manitoulin Island, Ont.*





*The strawberry is the most important of the small fruits produced in Canada.*

### **Special Crops**

**Fruit.**—Fruit is grown on a commercial scale in Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia. The most important producing areas are in the Provinces of Ontario and British Columbia which, according to the 1951 Census, produced 82 p.c. by value of all fruit in 1950—Ontario 49 p.c. and British Columbia 33 p.c. These figures show a further concentration of the industry in these two provinces since 1940 when together they produced 73 p.c. of the value of the fruit crop—Ontario 46 p.c. and British Columbia 27 p.c. In most of the producing areas, particularly the Annapolis Valley of Nova Scotia, the Niagara Peninsula of Ontario and the Okanagan Valley of British Columbia, fruit-growing is the principal agricultural crop and its prosperity is of paramount importance to the economy of these areas.

The apple crop is, of course, of major importance among the fruits grown, there being large plantings in each of the above-mentioned provinces. Strawberries and raspberries are also produced in commercial quantities in these provinces but production of pears, peaches, cherries, plums and prunes is very largely confined to British Columbia and Ontario. Ontario produces practically all the grapes grown in Canada and British Columbia is the only province in which there is a commercial apricot industry.

The Nova Scotia apple industry, and indeed the entire Canadian apple industry, has been going through a period of readjustment since about the beginning of World War II. During the War the shipping shortage precluded large movements of apples overseas and in most years since then currency problems have either blocked this trade entirely or restricted it severely. Thus the Canadian apple industry has found it necessary to make certain adjustments regarding production and marketing. The number of trees, particularly of varieties which before the War found a market largely in the United Kingdom, have had to be reduced and a larger proportion of the crop diverted to the domestic market.



# *Values of Fruits Produced, 1948-51, with Averages, 1943-47*

| Fruit                      | Average<br>1943-47 | 1948              | 1949              | 1950              | 1951              |
|----------------------------|--------------------|-------------------|-------------------|-------------------|-------------------|
|                            | \$                 | \$                | \$                | \$                | \$                |
| Apples.....                | 20,452,000         | 22,631,000        | 19,684,000        | 19,493,000        | 18,590,000        |
| Pears.....                 | 1,901,000          | 2,185,000         | 2,436,000         | 2,136,000         | 2,790,000         |
| Plums and prunes....       | 1,401,000          | 1,889,000         | 1,387,000         | 1,278,000         | 1,190,000         |
| Peaches.....               | 4,120,000          | 4,953,000         | 4,987,000         | 2,822,000         | 4,424,000         |
| Apricots.....              | 337,000            | 629,000           | 810,000           | 93,000            | 159,000           |
| Cherries.....              | 1,884,000          | 2,863,000         | 3,436,000         | 2,168,000         | 2,369,000         |
| Totals, Tree Fruits.       | 30,094,000         | 35,150,000        | 32,740,000        | 27,990,000        | 29,522,000        |
| Strawberries.....          | 3,946,000          | 6,821,000         | 5,662,000         | 6,885,000         | 5,830,000         |
| Raspberries.....           | 3,251,000          | 3,279,000         | 2,614,000         | 2,967,000         | 3,416,000         |
| Grapes.....                | 2,677,000          | 2,559,000         | 2,012,000         | 3,543,000         | 2,812,000         |
| Loganberries.....          | 193,000            | 340,000           | 124,000           | 177,000           | 158,000           |
| Totals, Small Fruits       | 10,066,000         | 12,999,000        | 10,412,000        | 13,572,000        | 12,216,000        |
| <b>Totals, All Fruits.</b> | <b>40,160,000</b>  | <b>48,149,000</b> | <b>43,152,000</b> | <b>41,562,000</b> | <b>41,738,000</b> |

Estimates place the 1952 apple crop at 11,800,000 bu., some 1,800,000 bu. below the 1951 crop. British Columbia and Nova Scotia reported increased crops but those harvested in Ontario and Quebec were much smaller. Production of all other fruits except peaches was smaller in Ontario in 1952 because the weather was unfavourable to bee flight during the pollination

*The Okanagan Valley in British Columbia, Southern Ontario and the Annapolis Valley in Nova Scotia supply the bulk of Canada's apple crop.*



season and was extremely hot and dry later in the summer. In British Columbia all fruit crops except pears increased in 1952, evidence of a further step in the recovery of the industry from the severe frost damage suffered in the interior of the Province during the winter of 1949-50.

The November 1952 estimates of production with final estimates for 1951 in parentheses were: apples, 11,783,000 bu. (13,610,000); pears, 1,047,000 bu. (1,225,000); plums and prunes, 707,000 bu. (692,000); peaches, 1,908,000 bu. (1,792,000); apricots, 250,000 bu. (38,000); cherries, 437,000 bu. (419,000); strawberries, 27,113,000 qt. (25,901,000); raspberries, 11,776,000 qt. (11,772,000); loganberries, 1,449,000 lb. (883,000) and grapes, 76,241,000 lb. (88,574,000).

Canning and processing industries have developed in the fruit-growing districts and although the importance of the processing market varies with different fruits it provides a valuable outlet for substantial proportions of most Canadian-grown fruit crops. Some canned fruits are exported.

**Tobacco.**—Production of all types of tobacco in 1952 was estimated at about 135,000,000 lb., a reduction of almost 19,000,000 lb. from the 1951 figure. This reduction was the result of a decrease in acreage arranged by the Flue-cured Tobacco Marketing Board of Ontario which was undertaken largely in view of an anticipated reduction in exports. In 1952, weather conditions were extremely favourable during the latter part of the growing season and as a result yields per acre were unusually high. Total tobacco acreages by provinces for 1952 with data for 1951 in parentheses were: Quebec 7,550 acres (9,080), Ontario 84,400 acres (109,740) and British Columbia 150 acres (150).

**Honey.**—The 1952 honey crop is estimated at 29,677,000 lb. which is less than the 1951 crop by over 10,000,000 lb. but slightly above the 1950 crop. Both the number of colonies and the yield per colony were lower—there were 15,790 beekeepers with 380,250 colonies in 1952 compared with 18,900 beekeepers and 406,340 colonies in 1951. Yields were down in all provinces except Alberta while colony numbers were down in all but three provinces. The reduced crop in Ontario represents a return to normal yields after the bumper crop of 1951. Below-average yields in 1952 in Manitoba and Saskatchewan are attributed to cool weather during July, which restricted bee flight.

**Maple Products.**—In 1952, 3,254,000 gal. of maple syrup and 2,161,000 lb. of maple sugar were produced and the gross farm value of these products amounted to \$12,175,000. The production of all maple products, expressed as syrup, was 50 p.c. higher than it was in 1951. Maple products are produced in Nova Scotia, New Brunswick, Quebec and Ontario and each of these provinces shared in the increased output of maple syrup in 1952 but only in New Brunswick and Quebec was the output of maple sugar greater. Quebec is by far the most important producer; in 1952, 85 p.c. of the syrup and 93 p.c. of the sugar was made in that Province.

**Sugar Beets.**—Production of sugar beets in 1952 amounted to 1,020,000 tons, a 6-p.c. increase over the 965,000 tons harvested in 1951. The area devoted to this crop in the later year was 92,969 acres, down slightly from 1951. The late open fall of 1952 was very favourable to harvesting operations

in all sugar-beet growing areas. The harvested acreages by provinces in 1952, with data for 1951 in parentheses, were Quebec 8,150 (10,000); Ontario 31,630 (31,471); Manitoba 16,411 (19,074); Alberta 36,778 (32,595). Processing plants are located at St. Hilaire, Que., Wallaceburg and Chatham, Ont., Fort Garry, Man., and Taber, Picture Butte and Raymond, Alta.

**Seeds.**—Volumes of the different types of seeds produced in Canada in 1950 and 1951 for the commercial market were as follows:—

### *Seed Production, by Kinds, 1950 and 1951*

| Kind                | 1950      | 1951     | Kind                | 1950      | 1951      |
|---------------------|-----------|----------|---------------------|-----------|-----------|
|                     | '000 lb.  | '000 lb. |                     | lb.       | lb.       |
| Hay and Pasture—    |           |          |                     |           |           |
| Alfalfa.....        | 12,535    | 5,088    | Carrot.....         | 41,200    | 9,700     |
| Red clover.....     | 3,625     | 12,931   | Cauliflower.....    | 380       | 670       |
| Alsike.....         | 2,320     | 1,665    | Corn.....           | 353,200   | 188,600   |
| Sweet clover.....   | 22,429    | 17,507   | Cucumber.....       | 2,200     | 360       |
| White clover.....   | 25        | 58       | Leek.....           | 500       | 700       |
| Timothy.....        | 15,928    | 9,140    | Lettuce.....        | 23,400    | 4,600     |
| Brome grass.....    | 13,930    | 10,200   | Mangel.....         | 31,500    | 3,800     |
| Crested wheat grass | 1,229     | 875      | Muskmelon.....      | 2,400     | —         |
| Creeping red fescue | 559       | 1,500    | Onion.....          | 104,400   | 16,700    |
| Canadian blue grass | 102       | 100      | Parsnip.....        | 9,100     | 1,600     |
| Kentucky blue grass | 2,000     | 500      | Pea.....            | 7,401,500 | 8,105,800 |
| Meadow fescue.....  | 490       | 454      | Pepper.....         | 330       | 280       |
| Western rye grass.. | 45        | 40       | Pumpkin.....        | 1,000     | 90        |
|                     |           |          | Radish.....         | 9,400     | 9,000     |
| Vegetable and Field |           |          | Spinach.....        | 8,500     | 2,100     |
| Root—               | lb.       | lb.      | Squash and marrow.. | 2,100     | 2,000     |
| Asparagus.....      | 20,100    | 10,500   | Sugar beet.....     | 650,000   | 495,300   |
| Bean.....           | 1,212,800 | 915,200  | Swede.....          | 46,700    | 47,400    |
| Beet.....           | 25,400    | 8,900    | Swiss chard.....    | 220       | —         |
| Cabbage.....        | 1,200     | 40       | Tomato.....         | 2,200     | 1,500     |

*Setting up a sprinkler irrigation system in a field of newly planted celery on one of the largest market gardens in the Fraser Valley, B.C.*







*The first units of the \$60,000,000 Otto Holden Generating Station went into service in June 1952. The plant, which will be generating 273,000 h.p. by early 1953, is the fourth power development on the Ottawa River and also the fourth power project to be completed by the Ontario Hydro-Electric Power Commission under its ten-year extension program started in 1945.*

# Water Power

CANADA is well endowed with water power resources. In most sections of the country adequate precipitation and favourable topography result in numerous fast-flowing rivers with many falls and rapids capable of development. This is particularly true of British Columbia and that portion of central and northern Canada lying within the Canadian Shield. In the eastern provinces, precipitation is moderately heavy and the rivers, while not large, afford many possibilities for moderate-sized developments. Only the prairies of the south middle west are without hydro-power resources, a lack compensated for by the tremendous coal and oil reserves of that area.

Under present hydraulic practice, the water-power resources of Canada would allow an economic turbine installation of more than 65,000,000 h.p. Slightly less than 22 p.c. of this potential is now being utilized.

## Available and Developed Water Power, by Provinces, Dec. 31, 1952

| Province or Territory                | Available 24-Hour Power at 80 p.c. Efficiency |                            | Turbine Installation |
|--------------------------------------|-----------------------------------------------|----------------------------|----------------------|
|                                      | At Ordinary Minimum Flow                      | At Ordinary Six-Month Flow |                      |
|                                      | h.p.                                          | h.p.                       | h.p.                 |
| Newfoundland.....                    | 1,135,000                                     | 2,585,000                  | 286,660              |
| Prince Edward Island.....            | 500                                           | 3,000                      | 2,299                |
| Nova Scotia.....                     | 25,500                                        | 156,000                    | 162,455              |
| New Brunswick.....                   | 123,000                                       | 334,000                    | 135,511              |
| Quebec.....                          | 10,898,000                                    | 20,219,000                 | 7,250,351            |
| Ontario.....                         | 5,407,000                                     | 7,261,000                  | 4,004,466            |
| Manitoba.....                        | 3,333,000                                     | 5,562,000                  | 735,900              |
| Saskatchewan.....                    | 550,000                                       | 1,120,000                  | 111,835              |
| Alberta.....                         | 508,000                                       | 1,258,000                  | 207,825              |
| British Columbia.....                | 7,023,000                                     | 10,998,000                 | 1,444,808            |
| Yukon and Northwest Territories..... | 382,500                                       | 814,000                    | 31,450               |
| <b>Canada.....</b>                   | <b>29,385,500</b>                             | <b>50,310,000</b>          | <b>14,373,560</b>    |

The Great Lakes-St. Lawrence River system forms a large part of the power resources of Ontario and Quebec and is the most highly developed in Canada, a fact that has had a marked influence on the rapid industrialization of these two provinces. The gradual change-over of Canada generally from an agricultural to a highly industrialized economy has coincided with the growth of water-power development. Low-cost power is fundamental in meeting the enormous requirements of the pulp and paper industry, permitting the economic mining, milling and refining of base and precious metals and facilitating the fabrication of many raw materials into a multitude of manufactured articles. From hydro-electric plants ranging in capacity from a few hundred to more than 1,000,000 h.p., networks of transmission line carry power to most urban centres and to an increasing number of rural districts. This wide distribution of power has facilitated the decentralization of industry, enabling manufacturing processes to be carried on in many of

the smaller centres of population. Economical domestic service, too, contributes in no small measure to the high standard of living enjoyed in Canada.

**Provincial Distribution of Water Power.**—*Prince Edward Island, Nova Scotia and New Brunswick*, despite the lack of large rivers, have valuable sources of hydraulic power, a considerable proportion of which has been developed. Estimates give the Island of *Newfoundland* a potential of about 500,000 h.p., 50 p.c. of which has been developed; in Labrador, the Hamilton River is outstanding as a potential source of power.

*Quebec* ranks highest in available water-power resources, having more than 40 p.c. of the total recorded for all Canada; its power development has been remarkable, its present installation of 7,250,351 h.p. representing over 50 p.c. of the total for Canada. The Saguenay River Shipshaw development of 1,200,000 h.p. and the St. Lawrence River Beauharnois Plant No. 1 of 742,000 h.p. are the two largest in the country. The Province of *Ontario* has extensive water-power resources and in total hydro-power developed is exceeded only by Quebec. The Hydro-Electric Power Commission of Ontario operates 64 hydro-electric stations with a total capacity of more than 3,200,000 h.p., the largest being the Niagara River Queenston plant of 560,000 h.p. Also a large amount of power is purchased from Quebec.

*Manitoba* has more water-power resources and has developed them to a greater extent than either of the other Prairie Provinces. Practically all the developed sites are located on the Winnipeg River. These supply not only Winnipeg and its suburban areas but, through the transmission network of the Manitoba Power Commission, power is distributed to more than 400 municipalities and a large part of the rural areas of southern Manitoba where farm electrification is a primary objective. In *Saskatchewan* water-power development is confined to the northern mining districts. The southern portions of Saskatchewan and Alberta are lacking in water-power resources but have large fuel reserves. In *Alberta*, present developments are located in the Bow River Basin and serve Calgary and numerous other municipalities between the International Boundary and the area north of Edmonton.

*British Columbia* ranks second among the provinces in available water-power resources and its hydraulic development is exceeded only by Quebec and Ontario. Present developments are practically all located in the southern part of the Province in the Fraser and Columbia River basins. In the *Yukon* and *Northwest Territories*, power has been developed for local mining purposes.

**Hydro-Electric Construction during 1952.**—Activity in the development of water-power sites for the production of electric energy continued at a high level during 1952. A total of 1,033,200 h.p. of new turbine capacity was brought into operation although the net increase in capacity shown over 1951 was slightly less than this amount owing to adjustments for old plants that were written off. At the end of 1952, a number of plants with a total capacity of about 640,000 h.p. were under advanced construction for operation in 1953, while preliminary and semi-advanced construction was under way on other projects for operation in 1954 which were tentatively rated at 1,300,000 h.p.

*Ontario.*—The Hydro-Electric Power Commission of Ontario completed its current program of construction on the Ottawa River by bringing into operation the Otto Holden Generating Station of 272,000 h.p. which





*The Beauharnois Power Development east of Montreal, on the shores of Lake St. Louis. The completion of new installations in 1953 and 1954 will bring the total capacity to 1,400,000 h.p. and the addition of another 600,000 h.p. under consideration will make this development one of the largest producers of hydro power in the world.*



was officially opened on June 11. On the Niagara River, excellent progress was made on the five-and-a-half-mile tunnel, the two-mile canal and the power-house foundations for the 735,000-h.p. Sir Adam Beck Generating Station No. 2, scheduled for initial operation in 1954. At Pine Portage on the Nipigon River, a third unit of 41,000 h.p. was ordered for 1954 installation. The Commission completed the second and third units, of 66,000 kw. each, in the steam-electric plant at Windsor and the second and third units,

of 100,000 kw. each, in the Toronto plant; these plants, with capacities of 264,000 kw. and 400,000 kw., respectively, are scheduled for completion in 1953. In addition to the activities of the Commission, the Great Lakes Power Company completed, at the end of December 1952, a new development of 15,000 h.p. in two units at Scott Falls on the Michipicoten River.

*Quebec.*—Hydro-electric construction was very active in the Province of Quebec during 1952. New capacity of 495,000 h.p. came into operation and good progress was made on other developments. The Quebec Hydro-Electric Commission continued the expansion of its Beauharnois Powerhouse No. 2 by adding two new units, of 55,000 h.p. each, to bring the capacity to 443,000 h.p.; the plant will reach its designed capacity of 663,000 h.p. in 1954. A Commission development of 16,000 h.p. at Rapid II on the upper Ottawa River was under advanced construction for operation in 1953, while sites on the Betsiamites (Bersimis) River were under investigation by the Commission. A major addition to the generating capacity of the Province was made by the Aluminum Company of Canada which completed the Chute-du-Diable development of 275,000 h.p. on the Peribonka River and put into initial operation the first two units, each of 55,000 h.p., in the Chute-à-la-Savanne plant on the same river. The latter plant of 275,000 h.p. is scheduled for completion early in 1953. Progress was made by Price Brothers and Company Limited on the Shipshaw River 70,000-h.p. development at Chute-des-Georges and on the 9,000-h.p. development at Lake Brocket for 1953 operation. Construction schedules were also maintained by the Manicouagan Power Company on a development near the mouth of the

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*Headworks and power house under construction at McCormick Dam on the Manicouagan River near Baie Comeau, Que.*





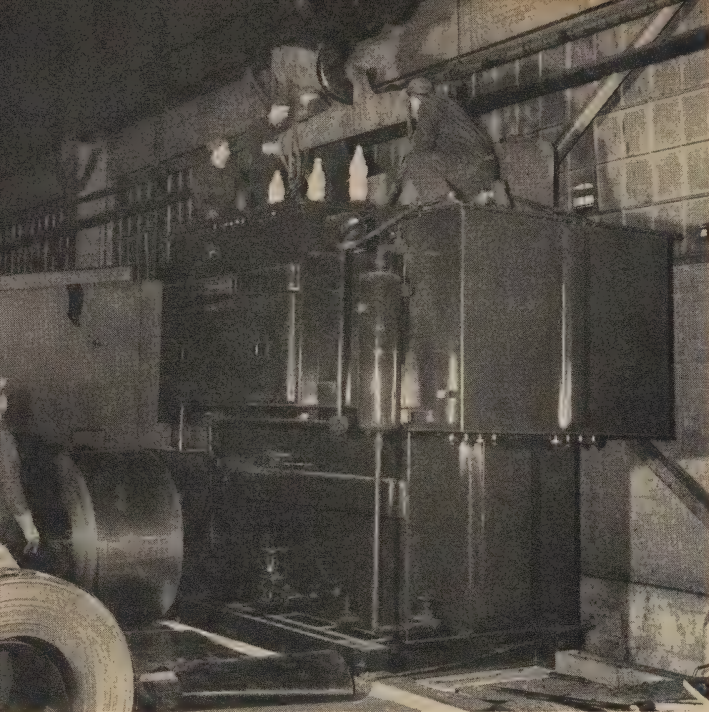
Constructing a two-mile span of power cable across Kootenay Lake, near Riondel, B.C. The span is a link between hydro plants on the Kootenay River and mining, concentration and chemical fertilizer operations at Kimberley.



Manicouagan River; the initial two 50,000-h.p. units of this 300,000-h.p. plant are scheduled for operation in 1953. The Ste. Marguerite Power Company proceeded actively with the development of 17,000 h.p. on the Ste. Marguerite River for 1954 operation. In June, the City of Megantic began construction of a development on the Chaudière River at Gayhurst with an initial capacity of 2,250 h.p. for 1954 operation and an ultimate capacity of 4,500 h.p.

*British Columbia.*—The British Columbia Power Commission completed its development of 4,000 h.p. at Clowhom Falls at tidewater at the head of Salmon Arm and had work under way on the 56,000-h.p. extension of the John Hart plant on the Campbell River for 1953 operation. The British Columbia Electric Company Limited had the Wahleach Lake 82,000-h.p. development ready for operation before the end of 1952. For 1953 operation the Company was also constructing a fourth unit of 62,000 h.p. to the Bridge River plant and was increasing the capacity of the Jordan River plant by 4,000 h.p. The Aluminum Company of Canada was actively engaged on several phases of its Nechako-Kitimat development and expects that initial operation will begin in the spring of 1954. The project involves a dam on the Nechako River, a 10-mile tunnel through the Coast Range, and an underground powerhouse which will contain three Pelton turbines each of 150,000 h.p. in the first stage of development and possibly 16 units ultimately. The Consolidated Mining and Smelting Company of Canada Limited had under construction on the Pend d'Oreille River a development of 205,000 h.p. in two units; operation is scheduled for early 1954.





Electrical equipment plays a vital part in all Canadian industries. A giant furnace transformer which will be used to handle electricity for tin-plating operations being installed in Hamilton, Ont., foundry.

*Yukon Territory.*—The Northwest Territories Power Commission completed construction of a 3,000-h.p. plant on the Mayo River; provision is made for a second unit when required.

*Prairie Provinces.*—No new water-power developments were made in Alberta or Saskatchewan but Calgary Power Limited will proceed in 1953 with the Bearpaw 25,000-h.p. development on the Bow River near Calgary, partly to relieve winter flooding from ice jams. The Saskatchewan Power Corporation increased the capacity of its steam plant at Saskatoon by 25,000 kw. and has a similar unit on order for 1954. It also increased its Prince Albert plant by 10,000 kw. and was installing a new unit of 20,000 kw. in its Estevan plant for 1953 operation.

The Manitoba Hydro-Electric Board completed the Pine Falls development on the Winnipeg River by bringing into operation 95,000 h.p. in four units. Full plant capacity is now 114,000 h.p. The Board also began preliminary work on a development of 80,000 h.p. at McArthur Falls for operation in 1954. The Winnipeg Electric Company completed the installation of the sixth and final unit of 37,500 h.p. in the Seven Sisters plant on the Winnipeg River. Sheritt-Gordon Mines brought into operation a development of 7,000 h.p. on the Laurie River, to serve the Lynn Lake area. To supplement the output of its hydro-electric plants, the City of Winnipeg brought into operation one unit of 15,000 kw. in the new steam plant and a second unit of 25,000 kw. was under installation for operation in 1953.

*Atlantic Provinces.*—In New Brunswick, the Maine and New Brunswick Electric Power Company increased the capacity of its Aroostook Falls plant

by 2,600 h.p. by replacement of one unit. The New Brunswick Electric Power Commission made good progress on its Tobique River development of 27,000 h.p. for 1953 operation. The capacity of the Commission's steam plant at Grand Lake was increased by 6,250 kw.

The Nova Scotia Power Commission completed its 8,600-h.p. Gulch development on the Bear River, and the Nova Scotia Light and Power Company Limited completed the White Rock 4,000-h.p. development on the Gaspereau River, which replaced a plant of 1,105 h.p. The capacity of the Commission's steam plant at Cantleys Point was increased by 10,000 kw. and the Company was installing a new unit of 20,000 kw. at Halifax for 1953 operation.

The Newfoundland Light and Power Company brought into operation its plant of 7,500 h.p. at Cape Broyle on the Horse Chops River and, at a point four miles upstream, was building a second plant of 7,500 h.p. for 1953 operation. The Anglo-Newfoundland Development Company Limited was carrying out a modernization program in its two plants on the Exploits River which would increase the capacity of each by 6,000 h.p. by 1953. In Labrador, the Iron Ore Company had active construction under way on its 12,000-h.p. development on the Ashuanipi River for 1954 operation, although transportation was a difficult problem.

## Central Electric Stations

Central electric stations are companies, municipalities or individuals that sell or distribute electric energy generated in their own power plants or purchased for resale. They represent what is known as the electric-power industry and are divided into (1) commercial or privately owned, and (2) municipal or publicly owned—those operated by municipal or provincial governments or the Federal Government. They are also classified according to the kind of power used: hydraulic or water driven; fuel or steam; and non-generating or distributing only.

The 348 hydraulic stations in Canada generate nearly all (97 p.c.) of the total output of central electric stations and are the backbone of the pulp and paper, aluminum, smelting and other manufacturing industries. Canadians enjoy the advantage of probably the cheapest electricity in the world in great volume with a turbine installation of some 14,374,000 h.p. Half the farms in Canada and the great majority of all urban homes have the benefits of power-line service. Revenues of central electric stations in 1950 approached \$324,000,000.

Based on monthly output data, the generation of central electric stations since 1929 was as follows:—

|                      | 1929        | 1939       | 1949       | 1951       | 1952 <sup>1</sup> |
|----------------------|-------------|------------|------------|------------|-------------------|
|                      | ('000 kwh.) |            |            |            |                   |
| Generated by—        |             |            |            |            |                   |
| Water power.....     | 17,294,463  | 27,861,784 | 45,084,284 | 55,590,622 | 59,600,000        |
| Thermal engines..... | 331,464     | 489,730    | 1,588,930  | 1,829,897  | 2,100,000         |
| TOTALS.....          | 17,625,927  | 28,351,514 | 46,673,214 | 57,420,519 | 61,700,000        |

<sup>1</sup> Estimated.

Electric energy is exported from Canada under licence and an export tax of 0.03 cents per kilowatt hour is levied. Exports totalled 1,756,752,000 kwh. in 1949, 2,375,420,000 kwh. in 1951 and 2,493,032,000 kwh. in 1952.





*Men and lumber piler at work. The introduction of mechanical handling equipment has been especially profitable to wood-using industries, effecting savings in labour costs and time.*



# Forestry

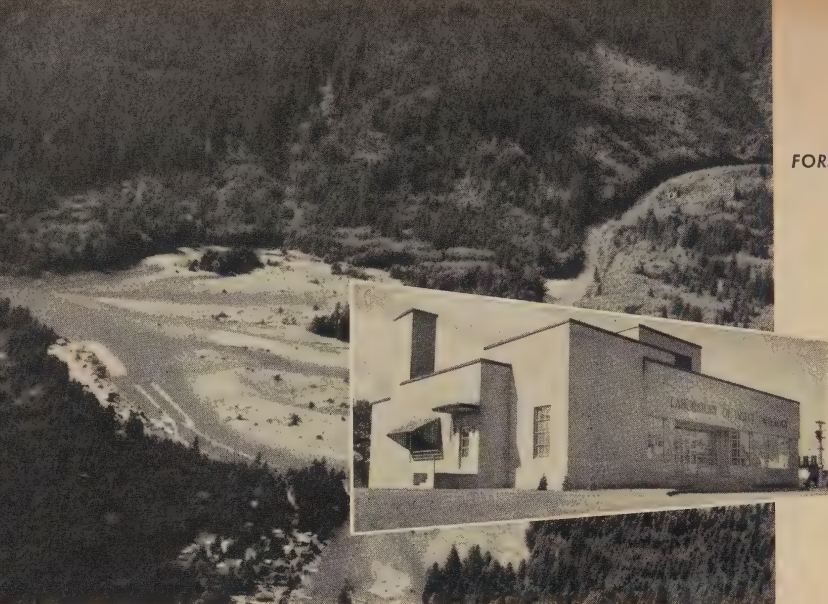
CANADA's forests and forest industries play a vital part in the national economy. They provide direct employment for hundreds of thousands of persons. They yield the largest amount of foreign exchange of any industrial group. They contribute significantly to the national income and, because the forests are a renewable asset, they can be considered inexhaustible. Present-day demands for lumber, pulp, newsprint and other forest products stand at unprecedented levels and it seems certain that they will reach even greater heights in the years to come. All Canadian forest industries are working at or near capacity and manufacturing facilities are being increased from year to year. In these circumstances the attention of governments, of industry and of the public at large has been drawn to the need for conserving the productivity of the forests and for protecting them against avoidable losses. Very much remains to be done, but the rate of progress towards more orderly forest management encourages the conviction that these forest lands are capable of yielding more benefits in the future than they have in the past and of doing so in perpetuity.

The Canadian forests stretch in a belt generally from 600 to 1,000 miles wide across the eastern provinces, curving northward on the prairies and dipping southward again to cover much of the Province of British Columbia. The forests of the Yukon and Northwest Territories and of northern Quebec form a transition zone between the Arctic tundra and the forested and agricultural lands to the south. The total forested area\* is estimated to be 1,320,321 sq. miles, 38 p.c. of the country's total land area. The forests within the provinces occupy 60 p.c. of provincial lands. Almost one-half of the total forested area is classified as 'non-productive' forest incapable of producing crops of merchantable timber because of adverse climatic, soil and moisture conditions. Although these lands are of little significance to the forest industries, they do provide valuable protection for drainage basins and shelter for game and fur-bearing animals. The country's 'productive' forests extend over some 764,333 sq. miles—22 p.c. of the total land area of Canada and about one-third of the land area of the ten provinces. A total of 503,000 sq. miles, or 66 p.c. of the productive area, is considered accessible for economic exploitation. Trees of merchantable dimensions occupy 60.5 p.c. of this accessible area, while the remainder consists of young trees which will grow to merchantable size. The inaccessible productive forests, 261,000 sq. miles in extent, constitute a reserve for the future.

Of the total productive forests, approximately 61.4 p.c. is comprised of softwood, 25.0 p.c. mixed wood and 13.6 p.c. hardwood. There are more than 150 tree species in Canada, 31 of which are conifers.

Of Canada's occupied forest lands, 32 p.c. is privately owned, the other 68 p.c. is still in the possession of the Crown in the right of either the Federal or Provincial Governments. Forests lying within the boundaries of the

\* All figures in this section are exclusive of Labrador, for which information is not yet available.



provinces, as with other natural resources, are administered by the provincial governments. The Federal Government is responsible for administration of forests in the Yukon and Northwest Territories, national parks and forest experiment stations. The general policy of the federal and provincial governments is to dispose of the timber under their jurisdiction by means of leases and annual licences to cut, rather than by the outright sale of timberland. Under this system the Crown retains ownership of the land and control of cutting operations. Revenue is received in the form of timber dues or stumpage, ground rent and fire-protection taxes.

Primary wood products cut from the forests were estimated to average about 3,117,000,000 cu. ft. in the five years 1946-50. Total depletion for that period averaged 3,794,000,000 cu. ft., including an estimated 177,000,000 cu. ft. destroyed by forest fires and 500,000,000 cu. ft. by insects and diseases. Since almost all of Canada's forest products are cut from the 312,438 sq. miles of occupied forest regions, it seems probable that considerable portions of the Canadian forests are being cut too heavily at present. Of vital importance then are the increasing activities of governments and industry alike in the fields of forest research and forest management. The different provinces are requiring lessees of Crown lands to establish and improve forest-working plans in accordance with sound forestry principles; research in forestry and in the utilization of forest products is being intensified in order that the forest manager may be provided with essential information; the Federal Government, under the terms of the Canada Forestry Act 1949, is assisting the provinces in the completion of their forest inventories and in the reforestation of Crown lands. Protective services are being strengthened through improvements in organization and equipment, and through research. Most provinces have stepped-up production of planting stock for the reforestation of Crown and private lands. Along with these tangible efforts is a growing awareness on the part of the people of Canada of the immense economic value of the forest resources entrusted to their care.



is an essential feature of planned forest management in which the Federal and Provincial Governments are vitally interested and increasingly active.



▲ Forest insects are reared for study.

Mapping and typing forested areas by means of aerial photography.



Examining year-old grafts in outdoor beds.



Forest pathologists determining the amount of decay in a recently felled tree.





## Forest Industries

The forest industries of Canada comprise woods operations, the lumber industry, the pulp and paper industry, and the wood-using and paper-using groups of industries, the latter groups using partially manufactured wood, pulp, or paper as their raw materials. The net value of production for the forest industries was \$1,652,000,000 in 1950, which was 28 p.c. of the net value of production for all Canadian industries.

In 1950, more than 356,000 men and women were directly dependent upon the forest industries for their livelihood—8 out of every 100 Canadian workers. The logging industry employed 150,000, the lumber industry 60,000, the pulp and paper industry 52,000 and the wood-using and paper-using industries 94,000.

**Woods Operations.**—East of the Rocky Mountains, logging operations are generally carried on by individual lumber companies and by pulp and paper companies, although the latter obtain a moderate amount of their requirements from independent pulpwood loggers. In British Columbia most of the large lumber companies operate their own logging units. Truck logging has almost replaced railroad operations and, as a result, there has been some increase in the number of small independent truck loggers but their output

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*Against a backdrop of British Columbia mountains, a diesel logging truck hauls 200 tons of Douglas fir. Coastal trees, fed by lush soil and warm rain, grow to tremendous sizes—the interior of the Province produces hardy but smaller-sized trees.*



Tractor-drawn sleds bring white pine logs to an Ontario sawmill where they are unloaded on the ice.



is only a small proportion of the total for the province. A not inconsiderable part of the country's primary forest production comes from farm woodlots; the chief product is fuelwood, but quite large quantities of pulpwood, sawlogs and wood products for use on the farm and for wood-using industries are also produced from these areas. The output of primary forest products has continued to increase both in volume and value—1950 production amounted to over 3,342,000,000 cu. ft. valued at \$625,734,603.

### Value of Primary Forest Production, 1949-50

| Product                    | 1949               | 1950               |
|----------------------------|--------------------|--------------------|
|                            | \$                 | \$                 |
| Logs and bolts.....        | 207,789,335        | 253,649,547        |
| Pulpwood.....              | 270,697,980        | 285,762,620        |
| Firewood.....              | 48,816,965         | 49,804,328         |
| Hewn railway ties.....     | 917,033            | 495,509            |
| Poles.....                 | 11,485,488         | 19,209,308         |
| Round mining timber.....   | 10,376,305         | 3,767,076          |
| Fence posts.....           | 2,640,576          | 2,906,249          |
| Wood for distillation..... | 467,997            | 425,918            |
| Fence rails.....           | 644,844            | 705,106            |
| Miscellaneous.....         | 7,575,539          | 9,008,942          |
| <b>Totals.....</b>         | <b>561,412,062</b> | <b>625,734,603</b> |

Domestic utilization of primary forest products runs at about 95 p.c. of the total output. Practically all logs, bolts and fuelwood produced are used within the country as well as between 85 and 90 p.c. of the pulpwood.

**Lumber.**—In 1950 the lumber industry led all other manufacturing industries in total employment and placed third in net value of products as well as in total wages and salaries paid. The number of active sawmills was 7,551. These mills are widely distributed across the country—wherever merchantable trees grow and markets have been developed for lumber products. Most of the larger mills are in British Columbia where the handling of large trees

requires specialized and massive mechanical equipment that, in turn, necessitates the building of permanent mills employing large staffs and operating throughout the year. In contrast, the smaller trees of eastern forests make it economically feasible to build smaller and comparatively inexpensive mills that generally operate in the summer and autumn seasons.

### *Production of Sawn Lumber and All Sawmill Products, 1950*

| Province or Territory                | Sawn Lumber Production |                    | Total Sawmill Products |
|--------------------------------------|------------------------|--------------------|------------------------|
|                                      | '000 ft. b.m.          | \$                 | \$                     |
| Newfoundland.....                    | 45,282                 | 2,214,046          | 2,430,089              |
| Prince Edward Island.....            | 11,569                 | 564,831            | 632,758                |
| Nova Scotia.....                     | 281,222                | 14,456,475         | 15,772,588             |
| New Brunswick.....                   | 298,918                | 16,867,224         | 19,774,001             |
| Quebec.....                          | 1,129,404              | 64,294,496         | 73,571,302             |
| Ontario.....                         | 819,835                | 55,692,481         | 68,488,612             |
| Manitoba.....                        | 58,345                 | 3,179,488          | 3,351,875              |
| Saskatchewan.....                    | 66,056                 | 3,237,996          | 3,641,075              |
| Alberta.....                         | 331,097                | 14,986,473         | 16,005,403             |
| British Columbia.....                | 3,508,787              | 246,729,414        | 293,022,294            |
| Yukon and Northwest Territories..... | 3,383                  | 257,776            | 258,401                |
| <b>Canada.....</b>                   | <b>6,553,898</b>       | <b>422,480,700</b> | <b>496,948,398</b>     |

The 1950 gross value of \$496,948,398 includes the following commodities: sawn lumber (\$422,480,700); shingles (\$31,807,753); sawn ties (\$6,803,184); processed pulpwood (\$7,211,629); box shooks (\$4,722,513); spoolwood (\$2,130,986); flatted mine timbers (\$1,217,675); staves (\$1,009,359); lath (\$1,134,741); pickets (\$556,814); heading (\$496,714); and other wood products and by-products (\$17,376,330).

Over 54 p.c. of the sawn lumber produced in 1950 was exported and the remainder was used in Canada for structural work and by wood-using industries.

**The Pulp and Paper Industry.**—Outstanding among all Canadian manufacturing industries, pulp and paper mills lead in net and gross values of production, in total wages and salaries paid and in expenditure on raw materials, fuel and electricity.

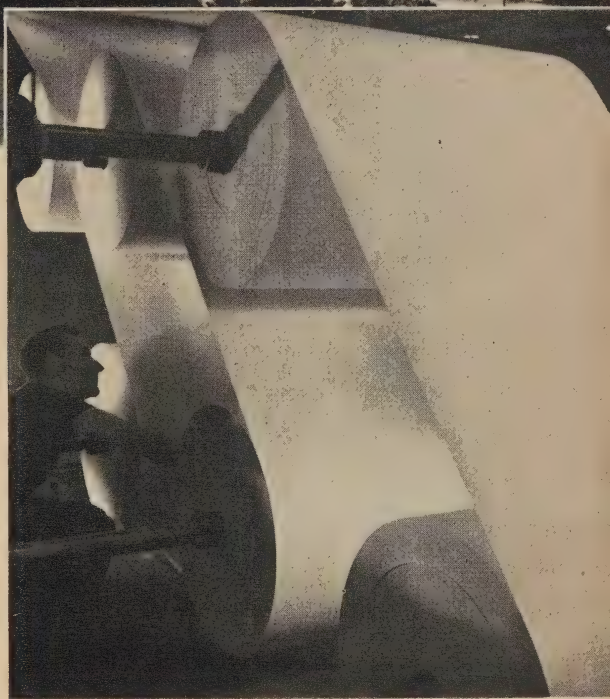
### *Principal Statistics of the Pulp and Paper Industry, 1930, 1940, 1950 and 1951*

| Item                         | 1930        | 1940        | 1950        | 1951          |
|------------------------------|-------------|-------------|-------------|---------------|
| Establishments.....No.       | 109         | 103         | 123         | 126           |
| Employees....."              | 33,207      | 34,719      | 52,343      | 57,291        |
| Salaries and wages.....\$    | 45,774,976  | 56,073,812  | 169,246,531 | 213,169,906   |
| Gross value of products...\$ | 215,674,246 | 298,034,843 | 954,137,651 | 1,237,897,470 |
| Net value of products...\$   | 107,959,927 | 158,230,575 | 511,142,983 | 679,257,743   |
| Pulp produced.....tons       | 3,619,345   | 5,290,762   | 8,473,014   | 9,314,849     |
| Paper produced.....tons      | 112,355,872 | 149,005,267 | 502,583,925 | 727,880,005   |
| Pulp exported.....tons       | 2,926,787   | 4,319,414   | 6,812,035   | 7,225,271     |
| Paper exported.....tons      | 173,305,874 | 225,836,809 | 710,153,826 | 824,029,649   |
| Pulp produced.....tons       | 762,220     | 1,068,516   | 1,846,143   | 2,243,307     |
| Pulp exported.....tons       | 39,059,979  | 60,930,149  | 208,555,549 | 365,132,884   |
| Newsprint exported...tons    | 2,332,510   | 3,242,789   | 4,938,069   | 5,112,061     |
| Newsprint produced...tons    | 133,370,932 | 151,360,196 | 485,746,314 | 536,372,498   |





*Pulp and paper mills at Edmundston, N.B. The forest resources of New Brunswick are of first importance to the Province. Over 80 p.c. of the land area is under forest cover and almost all of this is Crown owned.*



The 131 plants making pulp and paper at the end of 1952 led the world in production of newsprint and are second only to those of the United States in the production of wood-pulp. Quebec is the leading producer of both pulp and paper, manufacturing almost 50 p.c. of the Canadian output of each product. Ontario follows, producing 27 p.c. of the pulp and 28 p.c. of the paper. British Columbia, New Brunswick, Newfoundland, Nova Scotia and Manitoba account for the remaining production.

The products of the industry fall into four broad categories: (1) pulp made for sale and conversion into products elsewhere than in the pulp and

paper mills—besides being the raw material for paper, pulp is converted into numerous other products including rayon, photographic film, cellophane, nitro-cellulose and innumerable plastic materials; (2) newsprint, the raw material for the daily newspaper; (3) other papers, which include thousands of grades ranging from cigarette paper to banknote paper, from paperboard for milk-bottle caps to the finest coated and rag papers, from tissue to building papers; (4) paperboard, the standby of manufacturers and distributors.

### *Paper Production, by Provinces and Types, 1949-51*

| Province and Type                                               | 1949             |                    | 1950             |                    | 1951             |                    |
|-----------------------------------------------------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|
|                                                                 | Quantity         | Value              | Quantity         | Value              | Quantity         | Value              |
|                                                                 | tons             | \$                 | tons             | \$                 | tons             | \$                 |
| <b>Quebec—</b>                                                  |                  |                    |                  |                    |                  |                    |
| Newsprint.....                                                  | 2,704,995        | 241,981,534        | 2,766,159        | 261,176,678        | 2,884,877        | 290,191,574        |
| Book and writing..                                              | 71,744           | 16,807,909         | 76,517           | 19,935,645         | 84,140           | 24,997,828         |
| Wrapping.....                                                   | 116,469          | 16,781,488         | 122,632          | 20,372,400         | 148,849          | 27,428,551         |
| Paper boards.....                                               | 242,593          | 24,666,541         | 254,367          | 26,361,181         | 297,177          | 33,530,407         |
| Tissue paper.....                                               | 24,148           | 5,651,922          | 27,366           | 6,332,632          | 28,096           | 7,219,406          |
| Other paper.....                                                | 62,114           | 4,863,463          | 68,590           | 5,569,977          | 68,530           | 6,186,727          |
| <b>Totals, Quebec..</b>                                         | <b>3,222,063</b> | <b>310,752,857</b> | <b>3,315,631</b> | <b>339,748,513</b> | <b>3,511,669</b> | <b>389,554,493</b> |
| <b>Ontario—</b>                                                 |                  |                    |                  |                    |                  |                    |
| Newsprint.....                                                  | 1,223,636        | 111,907,509        | 1,240,116        | 119,620,533        | 1,285,925        | 133,024,418        |
| Book and writing..                                              | 127,541          | 23,785,729         | 137,580          | 27,420,765         | 168,941          | 38,792,431         |
| Wrapping.....                                                   | 47,953           | 9,025,273          | 62,661           | 12,069,742         | 66,741           | 15,055,396         |
| Paper boards.....                                               | 376,619          | 36,723,734         | 417,443          | 42,960,135         | 442,490          | 51,424,489         |
| Tissue paper.....                                               | 25,438           | 5,697,912          | 27,538           | 6,383,701          | 36,647           | 9,891,921          |
| Other paper.....                                                | 16,746           | 2,476,719          | 18,383           | 2,961,129          | 18,491           | 3,729,956          |
| <b>Totals, Ontario..</b>                                        | <b>1,817,933</b> | <b>189,616,876</b> | <b>1,903,721</b> | <b>211,416,005</b> | <b>2,019,235</b> | <b>251,918,611</b> |
| <b>British Columbia..</b>                                       | <b>471,619</b>   | <b>46,478,981</b>  | <b>498,286</b>   | <b>52,845,416</b>  | <b>513,165</b>   | <b>59,763,061</b>  |
| <b>Nova Scotia, New Brunswick, Manitoba and Newfoundland...</b> | <b>1,028,354</b> | <b>94,611,124</b>  | <b>1,094,397</b> | <b>106,143,892</b> | <b>1,181,202</b> | <b>122,793,484</b> |
| <b>Canada—</b>                                                  |                  |                    |                  |                    |                  |                    |
| Newsprint.....                                                  | 5,187,206        | 467,976,343        | 5,318,988        | 506,968,207        | 5,561,115        | 564,361,193        |
| Book and writing..                                              | 199,317          | 40,598,820         | 214,097          | 47,356,410         | 253,081          | 63,790,259         |
| Wrapping.....                                                   | 195,585          | 30,033,478         | 222,840          | 37,776,291         | 257,332          | 49,664,005         |
| Paper boards.....                                               | 797,023          | 80,632,075         | 876,894          | 92,531,711         | 960,493          | 113,469,950        |
| Tissue paper.....                                               | 68,340           | 13,950,007         | 76,742           | 15,885,792         | 89,583           | 21,574,730         |
| Other paper.....                                                | 92,498           | 8,269,115          | 102,474          | 9,635,415          | 103,667          | 11,169,512         |
| <b>Grand Totals..</b>                                           | <b>6,539,969</b> | <b>641,459,838</b> | <b>6,812,035</b> | <b>710,153,826</b> | <b>7,225,271</b> | <b>824,029,649</b> |

Almost one-quarter of Canada's production of wood-pulp is shipped outside the country, chiefly to the United States and in lesser amount to the United Kingdom. In 1951 over 92 p.c. of the newsprint production was exported and 93 p.c. of that went to the United States. Canada's newsprint exports account for over 80 p.c. of the world's exports of this product.

**Wood-Using and Paper-Using Industries.**—In 1950 the industries producing furniture, finished lumber, sash and doors and veneers and plywoods yielded over 81 p.c. of the net value of production for the wood-using group, which amounted to \$224,628,348. The net value of production of the small group of industries producing paper boxes and bags, roofing paper and miscellaneous products such as wallpaper, amounted to \$126,968,369.

## SIX FOREST LANDSCAPES

Pen and ink sketches of canvasses by six distinguished Canadian artists who were commissioned by the Canadian Pulp and Paper Association to depict in their own ways the chief forest species presently used in Canada's great pulpwood harvest.



### SPRUCE—by Thoreau MacDonald.

From Newfoundland to northern British Columbia, white and black spruce carpet the land to the very limit of tree growth. On hundreds of thousands of square miles of forest land, the spruces are the most valued species.







**BALSAM FIR**—by Charles F. Comfort.

Throughout Eastern Canada and in the northern parts of the Prairie Provinces, the balsam fir is one of the most common trees. It is second only to spruce as a source of pulpwood.

**JACK PINE**—by A. Y. Jackson.

Few trees are more hardy than the jack pine or have more ability to endure on poor sites and in harsh climates. Of all the pines, it travels farthest across Canada—from the Maritimes through to northwestern Alberta.







**EASTERN HEMLOCK**—by Albert Cloutier.

One of the most beautiful forest trees of Eastern Canada, the eastern hemlock grows mainly in mixed stands throughout the Maritimes, up the valley of the St. Lawrence and across Ontario to the shores of Lake Superior.

**WESTERN HEMLOCK**—by Franklin Arbuckle.

The largest and most majestic of the four species of hemlocks found on this Continent, the western hemlock grows with the Douglas fir, Sitka spruce and western cedar along the coastal belt of British Columbia.



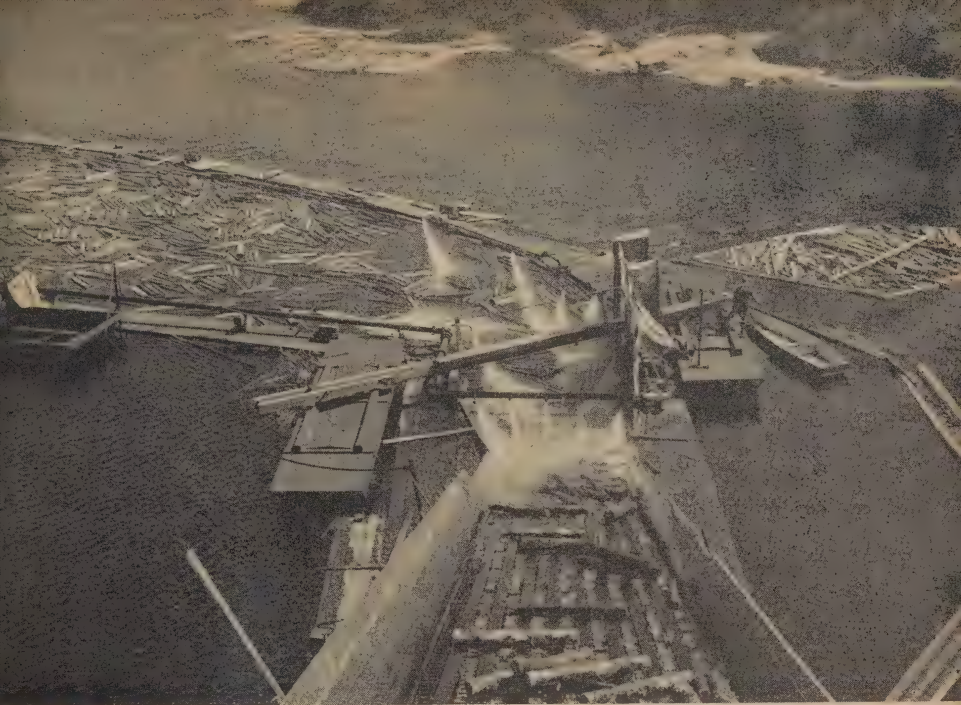


**POPLAR**—by A. J. Casson.

Of the eight species of poplars native to Canada, the trembling aspen and the balsam poplar are common to every province. There are few parts of Canada where these fast-growing, moisture-loving trees do not add life and colour to the forest.







*Jack ladder carrying logs into the mill at Dolbeau, Que.*



*Junior forest wardens  
receiving instructions  
on the mechanism of  
a portable pump.*



*Underground ore cars at Cobalt, Ont. In 1951, 4,500,000 oz. of silver and 325,000 lb. of cobalt were produced in the mines of the cobalt area.*



# Mines and Minerals

**M**INING is Canada's second largest primary industry—its expansion both in discovery and development during the past few years has been so tremendous as literally to transform much of the Canadian mining landscape. The order of importance of the outstanding post-war developments would be difficult to appraise but wherever the discovery of large quantities of natural gas in Alberta, the discovery of deposits of titanium ore in eastern Quebec, the discoveries of asbestos in British Columbia and Ontario, the huge aluminum project at Kitimat in British Columbia, or the other major developments appear in the picture, it is amply evident that Canada is witnessing the greatest wave of mineral resources development in its history.

The story of that development is outlined in a special article presented at pp. 21-31. Statistics of the quantity and value of mineral production in 1951, by types and by provinces, are given on the following pages.

**Canadian Mineral Production in 1951.**—Canada's mineral production attained a new high in 1951, with a total value of \$1,245,483,595, an increase of 19 p.c. over 1950. While very small declines were registered in the output of gold, lead, silver and coal, and larger drops in indium, tin and graphite (the last caused by the sudden flooding of the only producing mine late in 1950), increases, many of them very substantial, were recorded for practically all other products. Percentage gains in output, as compared with 1950, were: bismuth 20, cadmium 56, cobalt 63, copper 2, iron ore 30, nickel 11, platinum metals 11, platinum 23, selenium 46, and zinc 9. In the field of non-metallics, the percentages were: natural gas 17, crude petroleum 64, asbestos 11, barite 27, feldspar 15, fluorspar 16, gypsum 4, mica 28, nepheline syenite 23, quartz 10, salt 12, sodium sulphate 47, sulphur 23, cement 2, lime 10, sand and gravel 27, and stone 3.

Newfoundland's working mines are in the midst of development programs that will boost production considerably. Here streamlined loaders carry ore from the Wabana iron mines to vessels in Conception Bay.





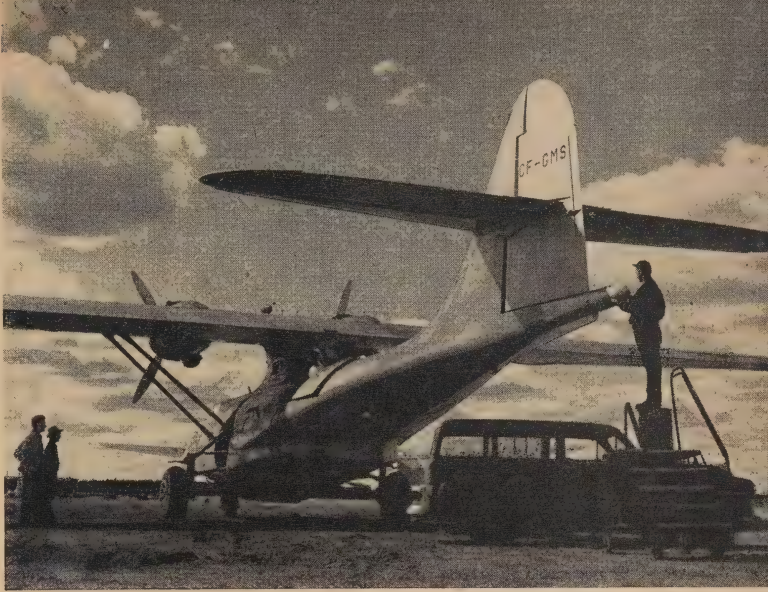
Despite a decline in production of 1.1 p.c. from 1950, gold still led all other minerals in value at \$161,872,873, almost 13 p.c. of Canada's total mineral production. Silver output showed a fractional decline in 1951, but higher prices resulted in a gain in value of 16 p.c.; lead, also, despite a production drop of over 4 p.c., registered a value increase of 21 p.c. Copper output increased only 2 p.c. but showed a rise in value of 21 p.c.; zinc production was up nearly 9 p.c. and value of output rose 38 p.c.

A number of all-time production highs were registered in 1951. The recorded production of antimony was greater in 1951 than in 1950 owing to the shipments of antimonial flue dust and slags. Also included in 1951 data were shipments of these materials made in earlier years but not previously recorded. Other metals recording new peaks were cadmium, iron ore, magnesium and zinc. The non-metallics included in this class were asbestos, cement, clay products, crude petroleum, fluorspar, gypsum, lime, natural gas, salt and stone.

### Quantities and Values of Minerals Produced, 1950 and 1951

| Mineral                                      | 1950        |             | 1951        |             |
|----------------------------------------------|-------------|-------------|-------------|-------------|
|                                              | Quantity    | Value       | Quantity    | Value       |
| <b>METALLICS</b>                             |             |             |             |             |
|                                              |             | \$          |             | \$          |
| Antimony..... lb.                            | 643,540     | 215,586     | 6,702,164   | 1,436,713   |
| Beryllium ore..... ton                       | 29          | 7,882       | —           | —           |
| Bismuth..... lb.                             | 191,621     | 431,147     | 230,298     | 543,504     |
| Cadmium..... "                               | 848,406     | 1,968,302   | 1,326,920   | 3,556,145   |
| Cobalt..... "                                | 583,806     | 964,003     | 951,607     | 1,999,612   |
| Copper..... "                                | 528,418,296 | 123,211,407 | 539,941,589 | 149,026,216 |
| Gold..... oz. t.                             | 4,441,227   | 168,988,687 | 4,392,751   | 161,872,873 |
| Indium..... "                                | 4,952       | 12,083      | 582         | 1,368       |
| Iron ore..... ton                            | 3,605,261   | 23,413,547  | 4,680,510   | 31,141,112  |
| Iron ingots..... "                           | 1,697       | 138,284     | 15,554      | 777,145     |
| Lead..... lb.                                | 331,394,128 | 47,886,452  | 316,462,751 | 58,229,146  |
| Magnesium and calcium.....                   | —           | 1,545,011   | —           | 3,618,219   |
| Molybdenite..... lb.                         | 103,550     | 60,059      | 381,596     | 228,958     |
| Nickel..... "                                | 247,317,867 | 112,104,685 | 275,806,272 | 151,269,994 |
| Palladium, rhodium, iridium, etc..... oz. t. | 148,741     | 7,578,144   | 164,905     | 7,950,107   |
| Platinum..... "                              | 124,571     | 10,255,929  | 153,483     | 14,542,515  |
| Selenium..... lb.                            | 261,973     | 633,975     | 382,603     | 1,239,633   |
| Silver..... oz. t.                           | 23,221,431  | 18,767,561  | 23,125,825  | 21,865,467  |
| Tellurium..... lb.                           | 10,075      | 19,143      | 8,913       | 16,400      |
| Tin..... "                                   | 796,403     | 828,259     | 346,718     | 494,073     |
| Titanium ore..... ton                        | 1,253       | 7,706       | 1,674       | 9,790       |
| Tungsten concentrates..... lb.               | 284,078     | 160,343     | 2,833       | 7,098       |
| Zinc..... "                                  | 626,454,598 | 98,040,145  | 682,224,335 | 135,762,643 |
| TOTALS, METALLICS.....                       | ...         | 617,238,340 | ...         | 745,588,728 |
| <b>FUELS</b>                                 |             |             |             |             |
| Coal..... ton                                | 19,139,112  | 110,140,399 | 18,586,823  | 109,038,835 |
| Natural gas..... M cu. ft.                   | 67,822,230  | 6,433,041   | 79,460,667  | 7,158,920   |
| Peat..... ton                                | 58          | 580         | 50          | 1,100       |
| Petroleum, crude..... bbl.                   | 29,043,788  | 84,619,937  | 47,615,534  | 116,655,238 |
| TOTALS, FUELS.....                           | ...         | 201,193,957 | ...         | 232,854,093 |
| <b>OTHER NON-METALLICS</b>                   |             |             |             |             |
| Arsenious oxide..... lb.                     | 794,091     | 52,029      | 2,353,362   | 129,435     |
| Asbestos..... ton                            | 875,344     | 65,854,568  | 973,198     | 81,584,345  |
| Barite..... "                                | 77,177      | 750,378     | 98,113      | 1,131,917   |
| Diatomite..... "                             | 49          | 1,665       | 92          | 3,148       |
| Feldspar..... "                              | 35,548      | 428,401     | 40,749      | 551,097     |
| Fluorspar..... "                             | 64,213      | 1,553,004   | 74,211      | 2,189,875   |
| Garnet rock..... "                           | 3           | 240         | —           | —           |
| Graphite..... "                              | 3,586       | 390,815     | 1,569       | 231,167     |

Aircraft and a new family of highly sensitive electrical instruments are speeding up the discovery of metals in Canada's vast outlying areas. The airborne magnetometer detects the presence of ore bodies sometimes hundreds of feet underground. Here the magnetometer unit installed in a Federal Government aircraft is being inspected before takeoff.



Quantities and Values of Minerals Produced, 1950 and 1951—concluded

| Mineral                             | 1950       |               | 1951       |               |
|-------------------------------------|------------|---------------|------------|---------------|
|                                     | Quantity   | Value         | Quantity   | Value         |
|                                     |            | \$            |            | \$            |
| Grindstone..... ton                 | 100        | 10,000        | 60         | 6,000         |
| Gypsum..... "                       | 3,666,336  | 6,707,506     | 3,802,692  | 5,880,853     |
| Iron oxide..... "                   | 13,696     | 262,632       | 13,342     | 262,277       |
| Magnetitic dolomite, brucite..... " | ...        | 1,717,879     | ...        | 2,437,773     |
| Mica..... lb.                       | 3,879,209  | 252,611       | 4,961,508  | 447,650       |
| Mineral water..... gal.             | 318,829    | 158,897       | 325,300    | 146,971       |
| Nepheline syenite..... ton          | 65,638     | 842,886       | 81,108     | 1,114,943     |
| Peat moss..... "                    | 75,195     | 2,256,870     | 76,809     | 2,433,008     |
| Phosphate rock..... "               | 129        | 1,069         | 6          | 94            |
| Quartz..... "                       | 1,730,695  | 1,740,268     | 1,904,885  | 2,258,468     |
| Salt..... "                         | 858,896    | 7,011,306     | 964,525    | 7,905,977     |
| Silica brick..... M                 | 3,126      | 408,813       | 3,510      | 465,229       |
| Soapstone and talc..... ton         | 32,604     | 364,635       | 24,846     | 283,624       |
| Sodium sulphate..... "              | 130,730    | 1,615,867     | 192,371    | 2,383,770     |
| Sulphur..... "                      | 301,172    | 2,189,660     | 371,790    | 3,120,785     |
| Titanium dioxide..... "             | 1,596      | 149,565       | 14,123     | 738,577       |
| TOTALS, OTHER NON-METALLICS...      | ...        | 94,721,564    | ...        | 115,706,983   |
| STRUCTURAL MATERIALS                |            |               |            |               |
| Clay products..... "                | ...        | 21,790,888    | ...        | 23,527,656    |
| Cement..... bbl.                    | 16,741,826 | 35,894,124    | 17,007,812 | 40,446,288    |
| Lime..... ton                       | 1,124,188  | 12,281,084    | 1,241,041  | 14,082,520    |
| Sand and gravel..... "              | 73,095,163 | 36,434,759    | 92,972,821 | 44,627,559    |
| Stone..... "                        | 18,087,064 | 25,895,357    | 18,676,706 | 28,649,768    |
| TOTALS, STRUCTURAL MATERIALS...     | ...        | 132,296,212   | ...        | 151,333,791   |
| Grand Totals.....                   | ...        | 1,045,450,073 | ...        | 1,245,483,595 |

**Provincial Distribution of Production.**—Newfoundland produced 2.6 p.c., on a value basis, of Canada's 1951 mineral production made up mainly of zinc, iron ore, lead, fluorspar, copper, silver and gold, in that order. Almost 92 p.c.

of the Canadian production of fluorspar comes from Newfoundland and the Province is second only to Ontario in iron ore. Nova Scotia's coal mines accounted for 82 p.c. in value of the provincial mineral production, the remainder including gypsum, structural materials, salt, barite and silica brick. Nova Scotia turns out nearly 99 p.c. of Canada's production of barite, 84 p.c. of the gypsum, and 34 p.c. of the coal. New Brunswick's small mineral production consists mainly of structural materials, and also includes small amounts of coal, natural gas, oil and gypsum.

Quebec is second among the provinces in mineral production and has a wide variety of output. The Province attained a new peak in 1951 and accounted for 20.5 p.c. of the Canadian total value. Quebec produced 97 p.c. of the asbestos mined and stood first in feldspar and selenium; second in gold, copper, zinc, quartz and sulphur; and third in silver. Molybdenite, titanium oxide, magnesitic dolomite and brucite are mined in that Province only and Quebec will step into the front rank of producers of high-grade iron ore, when the Quebec-Labrador mines come into production in 1954.

Ontario has held first position in Canadian mineral production for close to half a century and still holds it by a wide margin, accounting in 1951 for 35.7 p.c. of the total value. Metals produced in Ontario made up 82 p.c. of the provincial total value, and 49 p.c. of the total for all Canada. Minerals in which the Province leads, with percentages of total Canadian production, are: copper (48), gold (56), tellurium (71), iron ore (61), quartz (81), soapstone and talc (55), and salt (80). Ontario ranks second in silver, feldspar, gypsum, mica, silica brick and fluorspar and is the only province producing calcium, cobalt, magnesium, nickel, the platinum metals, graphite and nepheline syenite as well as practically all the platinum. The Munro mine, near Matheson, has brought the Province into the picture as a producer of high-grade asbestos.

While Manitoba has not been one of the great mineral-producing provinces, the development of the large copper-nickel deposits at Lynn Lake and recent successful borings for oil in the southwestern part of the Province will greatly improve its position. The copper-gold-zinc-silver mine at Flin Flon, on the border between Manitoba and Saskatchewan, has been the source of the greater part of the metal output. For 1951 the leading minerals in order of value were copper, gold, zinc, and silver: fairly substantial quantities of cadmium, cement, gypsum, and salt were produced, with lesser quantities of petroleum, selenium and tellurium. The major part of Saskatchewan's metal production comes from the Flin Flon mine; copper and zinc lead the mineral output in value, followed by coal, gold, sodium sulphate, crude petroleum and silver, in that order. Development work continued on the potash beds near Vera. The uranium discoveries north of Lake Athabaska mark a first-rank addition to Canada's mineral resources.

The fourth place in mineral output occupied by Alberta in 1951 is due to production of coal and oil. In 1951 that Province was responsible for 13.5 p.c. in value of Canada's total mineral production. Its oil fields produced more than 96 p.c. of the Canadian output of petroleum, nearly 88 p.c. of the natural gas, and over 41 p.c. of the coal. The Province produces a small amount of salt and a little gold. Sulphur from 'sour' gas is produced at a rate of 21,000 tons annually.



British Columbia ranks third among the provinces in value of mineral output, accounting for 14.1 p.c. of the total production for 1951. Metals made up by far the greatest part of this output—over 86 p.c. British Columbia's contribution to the Canadian total metal production amounted to 20.2 p.c. The Province is credited with all the antimony, indium and tin produced in Canada, and most of the bismuth and cadmium: it occupies first place in lead (80.7 p.c.), sulphur (52.4 p.c.), zinc (49.5 p.c.) and silver (36 p.c.). British Columbia stands second in barite, third in gold and iron ore and fourth in coal and copper. Substantial amounts of gypsum, diatomite, mica, quartz and structural materials are also produced. Active development is in progress in two other fields of some importance—the deposits of long-fibre asbestos in the McDame area in the northern part of the Province, and the tungsten deposits near Salmo; the latter will constitute the most important source of tungsten in the free world.

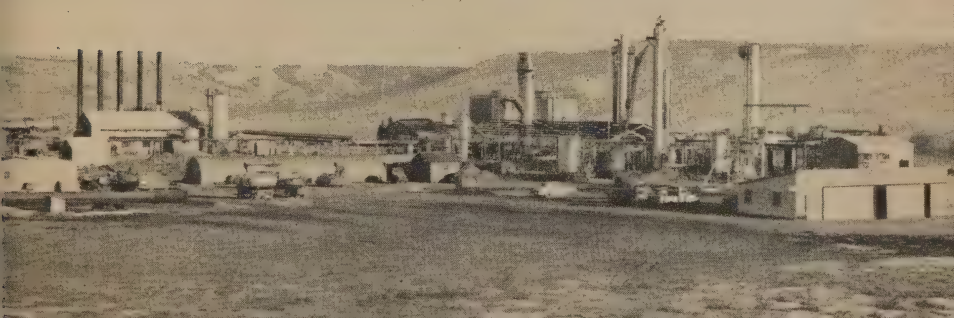
Silver and gold, in that order, constitute the principal part of the mineral output of Yukon Territory, closely followed by lead and zinc. Yukon also turns out small amounts of cadmium, coal and tungsten. Gold, uranium ore and crude petroleum are the principal minerals produced in the Northwest Territories; small amounts of silver and copper are also mined.

### *Mineral Production, by Provinces, 1949-51*

| Province or Territory          | 1949               |               | 1950                 |               | 1951                 |               |
|--------------------------------|--------------------|---------------|----------------------|---------------|----------------------|---------------|
|                                | Value              | P.C. of Total | Value                | P.C. of Total | Value                | P.C. of Total |
|                                | \$                 |               | \$                   |               | \$                   |               |
| Newfoundland.....              | 27,583,615         | 3.0           | 25,824,047           | 2.5           | 32,410,443           | 2.6           |
| Nova Scotia.....               | 56,092,830         | 6.2           | 59,482,173           | 5.7           | 59,727,256           | 4.8           |
| New Brunswick.....             | 7,134,009          | 0.8           | 12,756,975           | 1.2           | 9,564,617            | 0.8           |
| Quebec.....                    | 165,021,513        | 18.3          | 220,176,517          | 21.0          | 255,530,071          | 20.5          |
| Ontario.....                   | 323,368,644        | 35.9          | 366,801,525          | 35.1          | 444,667,203          | 35.7          |
| Manitoba.....                  | 23,839,638         | 2.6           | 32,691,173           | 3.1           | 30,045,992           | 2.4           |
| Saskatchewan.....              | 36,054,536         | 4.0           | 35,983,923           | 3.4           | 51,032,953           | 4.1           |
| Alberta.....                   | 113,728,425        | 12.6          | 135,758,940          | 13.0          | 168,144,211          | 13.5          |
| British Columbia.....          | 136,385,911        | 15.2          | 138,888,205          | 13.3          | 176,278,932          | 14.1          |
| Yukon Territory.....           | 5,099,176          | 0.6           | 9,035,696            | 0.9           | 9,793,170            | 0.8           |
| Northwest Territories          | 6,801,729          | 0.8           | 8,050,899            | 0.8           | 8,288,747            | 0.7           |
| <b>Totals<sup>1</sup>.....</b> | <b>901,110,026</b> | <b>100.0</b>  | <b>1,045,450,073</b> | <b>100.0</b>  | <b>1,245,483,595</b> | <b>100.0</b>  |

<sup>1</sup> Excluding pitchblende products.

*Sulphur recovery plant at Jumping Pound, Alta., Canada's first plant for the extraction of elemental sulphur from waste acid gases produced in a gas scrubbing plant.*





## Fisheries

**D**URING the past quarter-century Canada's commercial fishing industry has undergone great changes. Methods of fishing and processing have improved immeasurably; new fishery resources have been discovered and exploited, and new markets have been developed to supplement the traditional outlets. In the same period much has been done to assure the continuance of fish stocks. The federal Department of Fisheries has widened the scope of its conservation measures and in several instances has joined other countries, notably the United States, in treaties designed to protect the fishery resources and at the same time allow maximum exploitation.

Canada's interest in international efforts toward conservation of the fisheries not only in her own territorial waters but in the high seas is stimulated partly by the increasing need in many parts of the world for protein foods. This need for food is driving fishermen to more distant fishing grounds and is encouraging the development of more efficient methods of catching, preserving and processing fish and fishery products. For some years, two international commissions, formed of Canadian and United States members, have operated on the Pacific Coast to manage the halibut stocks and the sockeye salmon runs of the Fraser River. In 1949, the Government of Canada became a signatory, along with ten other countries, to the International Commission for the Northwest Atlantic Fisheries. In 1952 Canada joined with the United States and Japan in signing the North Pacific Fisheries Convention, the main object of which is to find a way of extending the conservation arrangements in the north Pacific. Canada also is one of the 15 countries party to the International Convention for the Regulation of Whaling.

The federal Department of Fisheries, in its program of guarding Canada's fishery resources and assuring their wisest exploitation, bases its regulations on sound biological and technological work. This work is carried out by the Fisheries Research Board of Canada, which conducts constant investigations and experiments; some of these have proved valuable to industry in the development of improved processing methods, cold-storage facilities, means of transportation and methods of processing and packaging. Other results of the Board's work, such as the discovery of new stocks of fish, the provision of information about the movements of fish and the development of improved gear and tackle, have proved beneficial to the fishermen directly.

The annual catch by Canadian fishermen, now greater than ever before, is more than 2,000,000,000 lb., with a landed value of about \$100,000,000 and a marketed value almost double that amount. Part of the increase in value to the fishermen and to the industry as a whole is due to a general advance over the years in the prices of fish and part to the development of such products as frozen fillets that command higher prices.

Approximately two-thirds of Canada's fish production comes from the waters of the northwest Atlantic, divided almost evenly between the Maritime Provinces and Quebec on the one hand and Newfoundland on the other.





*Rustico, a lobster-fishing village on the north shore of Prince Edward Island. Lobster is second to cod in value among Atlantic fishery products.*

The remainder is accounted for by British Columbia and the fresh-water fisheries of the inland lakes.

The fishery industry now has more than \$80,000,000 invested in vessels, gear and equipment. British Columbia salmon and Atlantic lobster, halibut from both the Pacific and Atlantic, and whitefish from the fresh-water fishery all command premium prices on the world market. Partly as a result of this, Canada's fishery exports, in dollar value, are greater than those of any other country in the world.

**The Atlantic Fishery.**—The main catches on the great Atlantic banks, which were fished by Europeans even before the settlement of Canada had begun, are cod, haddock, halibut, rosefish, hake and other groundfish.

Lobsters are second to groundfish in value in the Atlantic fisheries. These crustaceans are caught mainly in Prince Edward Island, Nova Scotia and New Brunswick but are found also in the waters of Quebec and Newfoundland. Other shellfish of value to the Maritime Provinces are oysters (chiefly from New Brunswick and Prince Edward Island), clams, mussels and quahaugs. Herring fishery is of importance in southwestern New Brunswick, where large quantities of small herring are caught in fish weirs and processed as sardines.

Both the deepsea and inshore fisheries of the Atlantic Provinces are undergoing drastic changes. The traditional schooners carrying dories from which

fishermen long-line for cod and other groundfish are being replaced on the "banks" by large trawlers using nets dragged along the sea floor. Smaller trawlers, known as draggers, are also growing in importance. In some Maritime areas these draggers are changing the nature of the fishery from an inshore to a deepsea operation. Small-boat fishermen who were never able to go more than a few miles offshore are now ranging far out to sea in the summer months. Some inshore fishermen who formerly worked alone

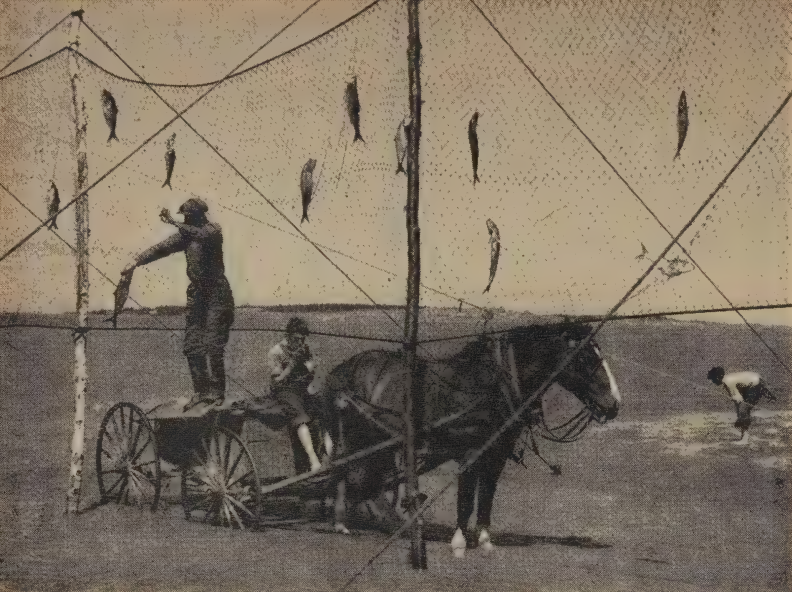
*Up and down the Pacific Coast, the individual gillnetter—a small businessman in his own right—accounts for a large proportion of the salmon catch.*



*Fishing boats in False Creek, Vancouver, B.C.*







Minudie fishermen pick shad from the air. World's highest tides in the Bay of Fundy compel fishermen to elevate their nets. They gather the catch in wagons and race swift in coming water back to shore.

in small boats are now long-lining from larger vessels that carry crews of four or five men and are thus able to participate in both inshore and offshore fisheries.

**The Pacific Fishery.**—The five species of Pacific salmon—sockeye, chum, coho, pink and spring—have made the well-organized fishery of British Columbia greater, in terms of landed and marketed value, than that of any other province. The salmon are caught by gill-nets and purse-seines at sea. Halibut and herring are other species important to the British Columbia fishermen and so, to a lesser extent, are soles, albacore tuna, ling cod, black cod, clams, crabs and oysters.

Many fishery products also contribute to British Columbia's revenue from the industry. Meal and marine oil production expanded greatly during the war and post-war years, herring forming the chief source of raw material for meal. Vitamin oils from the livers of such fish as ling cod, black cod and dogfish add to the value of the fishery and, since whaling was resumed after the end of the War, an annual catch of more than 400 whales has supplied a considerable amount of raw material, industrial oil being the chief revenue-producer in this branch of the industry.

**The Fresh-water Fishery.**—The important commercial catches in the Great Lakes and other large bodies of fresh water such as Lake Winnipeg and Great Slave Lake, as well as in many smaller lakes, are whitefish, lake trout, pike, pickerel and tullibee. All species find ready markets in Canada and in the United States.

Of the advances made in methods of catching, processing, marketing and transportation, possibly the most significant are those that have developed the fresh and frozen fillet industry to a high peak of efficiency. This is particularly noticeable in the Maritime Provinces and Newfoundland, where traditional methods of drying cod for overseas markets are being replaced to a considerable extent by new processes carried out in modern plants.



## Statistics of Fisheries Production

The marketed value of the fisheries of Canada, exclusive of Newfoundland, climbed to a new high in 1950, amounting to \$152,063,000. Although no detailed statistics are available for Newfoundland, it is estimated that the total value of the fishery products of that Province is in the neighbourhood of \$30,000,000, which places the total for Canada at over \$180,000,000.

British Columbia was the leading fish producer, with a commercial value of \$68,821,000. Salmon maintained its position as king of Canadian fishes; the marketed value of its products at \$49,929,000 was far above that of any other species.

### Trends in Landings, Values of Production and Equipment, and Numbers Employed in the Fishery Industry, 1899-50

(Exclusive of Newfoundland)

| Year and Average       | Quantity Landed | Value of Production | Value of Equipment | Employees in— |                 |
|------------------------|-----------------|---------------------|--------------------|---------------|-----------------|
|                        |                 |                     |                    | Fishing       | Fish Processing |
|                        | '000 lb.        | \$'000              | \$'000             | No.           | No.             |
| Average 1899-1908..... | ..              | 24,447              | ..                 | 77,282        | 14,070          |
| 1909.....              | ..              | 29,629              | ..                 | 68,663        | 21,694          |
| 1914.....              | ..              | 31,265              | ..                 | 69,954        | 24,559          |
| Average 1909-18.....   | ..              | 37,976              | ..                 | 69,540        | 24,094          |
| 1919.....              | 930,632         | 56,508              | 31,376             | 67,804        | 18,356          |
| 1924.....              | 913,757         | 44,534              | 23,543             | 53,914        | 15,526          |
| Average 1919-28.....   | 953,496         | 47,806              | 27,813             | 59,139        | 16,432          |
| 1929.....              | 1,150,085       | 53,519              | 33,935             | 64,083        | 16,367          |
| 1934.....              | 933,087         | 34,022              | 26,213             | 68,634        | 14,802          |
| Average 1929-38.....   | 995,450         | 37,239              | 27,672             | 67,014        | 14,586          |
| 1939.....              | 1,063,774       | 40,076              | 25,843             | 68,941        | 14,814          |
| 1944.....              | 1,179,146       | 89,440              | 35,057             | 64,208        | 17,272          |
| Average 1939-48.....   | 1,240,570       | 89,625              | 38,911             | 66,130        | 16,661          |
| 1949.....              | 1,317,706       | 130,946             | 69,543             | 64,613        | 16,087          |
| 1950.....              | 1,491,223       | 152,063             | 80,118             | 65,037        | 14,861          |

Atlantic fish was traditionally salted and dried largely for overseas export. However, modern processing methods, such as are used in this new plant at Louisburg, N.S., have resulted in the disposal of a much greater portion of the catch in fresh or frozen state on domestic and United States markets.



# Quantities Landed and Values of All Products Marketed, of the Chief Commercial Fishes, by Provinces, 1949 and 1950

(Exclusive of Newfoundland)

| Province or Territory      | Kind of Fish        | 1949            |                   | 1950            |                   |
|----------------------------|---------------------|-----------------|-------------------|-----------------|-------------------|
|                            |                     | Quantity Landed | Value of Products | Quantity Landed | Value of Products |
|                            |                     | '000 lb.        | \$'000            | '000 lb.        | \$'000            |
| Prince Edward Island.....  | Lobsters.....       | 6,843           | 1,685             | 9,098           | 2,240             |
|                            | Cod.....            | 6,104           | 283               | 4,343           | 213               |
|                            | Smelts.....         | 993             | 150               | 1,139           | 185               |
| Nova Scotia.....           | Cod.....            | 153,427         | 12,203            | 161,411         | 12,450            |
|                            | Lobsters.....       | 19,891          | 6,815             | 21,978          | 7,778             |
|                            | Haddock.....        | 45,404          | 3,680             | 46,213          | 4,140             |
| New Brunswick.....         | Lobsters.....       | 9,399           | 5,018             | 11,332          | 5,475             |
|                            | Sardines.....       | 58,597          | 4,379             | 67,489          | 4,939             |
|                            | Herring.....        | 43,153          | 2,310             | 77,726          | 2,253             |
| Quebec.....                | Cod.....            | 59,045          | 2,475             | 61,443          | 2,763             |
|                            | Lobsters.....       | 2,073           | 586               | 2,278           | 700               |
|                            | Herring.....        | 31,550          | 460               | 39,821          | 497               |
| Ontario.....               | Whitefish.....      | 6,655           | 2,224             | 6,589           | 2,163             |
|                            | Blue Pickerel.....  | 9,517           | 662               | 8,665           | 1,559             |
|                            | Pickerel.....       | 3,157           | 665               | 3,510           | 896               |
| Manitoba.....              | Pickerel.....       | 8,963           | 1,955             | 9,136           | 2,605             |
|                            | Whitefish.....      | 4,220           | 1,151             | 6,217           | 1,999             |
|                            | Saugers.....        | 7,467           | 1,012             | 5,121           | 1,161             |
| Saskatchewan.....          | Whitefish.....      | 3,542           | 559               | 4,389           | 799               |
|                            | Trout.....          | 935             | 203               | 987             | 218               |
|                            | Pickerel.....       | 900             | 133               | 871             | 155               |
| Alberta.....               | Whitefish.....      | 1,870           | 422               | 2,411           | 524               |
|                            | Tullibee.....       | 3,160           | 133               | 3,673           | 165               |
|                            | Pike.....           | 594             | 51                | 388             | 35                |
| British Columbia.....      | Salmon.....         | 147,368         | 35,898            | 184,700         | 48,702            |
|                            | Herring.....        | 344,527         | 9,413             | 397,566         | 9,313             |
|                            | Halibut.....        | 17,997          | 4,356             | 18,882          | 5,552             |
| Northwest Territories..... | Whitefish.....      | 4,573           | 1,405             | 5,071           | 1,561             |
|                            | Trout.....          | 2,628           | 856               | 2,442           | 662               |
| <b>Canada.....</b>         | <b>Salmon.....</b>  | <b>149,744</b>  | <b>37,278</b>     | <b>186,944</b>  | <b>49,929</b>     |
|                            | <b>Cod.....</b>     | <b>249,291</b>  | <b>17,004</b>     | <b>255,729</b>  | <b>17,242</b>     |
|                            | <b>Herring.....</b> | <b>470,370</b>  | <b>14,727</b>     | <b>560,035</b>  | <b>14,349</b>     |

## Marketed Values of Fish Products, by Provinces, 1950, and Averages 1935-39

(Exclusive of Newfoundland)

| Province or Territory      | Marketed Values of Production |                | Percentages of Total Values |              |
|----------------------------|-------------------------------|----------------|-----------------------------|--------------|
|                            | Average 1935-39               | 1950           | Average 1935-39             | 1950         |
|                            | \$'000                        | \$'000         | p.c.                        | p.c.         |
| Prince Edward Island.....  | 921                           | 3,321          | 2.4                         | 2.2          |
| Nova Scotia.....           | 8,709                         | 38,121         | 22.6                        | 25.1         |
| New Brunswick.....         | 4,375                         | 18,053         | 11.3                        | 11.9         |
| Quebec.....                | 1,983                         | 5,496          | 5.1                         | 3.6          |
| Ontario.....               | 3,208                         | 7,034          | 8.3                         | 4.6          |
| Manitoba.....              | 1,638                         | 6,791          | 4.2                         | 4.5          |
| Saskatchewan.....          | 419                           | 1,360          | 1.1                         | 0.9          |
| Alberta.....               | 378                           | 768            | 1.0                         | 0.5          |
| British Columbia.....      | 16,986                        | 68,821         | 44.0                        | 45.2         |
| Northwest Territories..... | <sup>1</sup>                  | 2,298          | ...                         | 1.5          |
| Yukon Territory.....       | 11                            | —              | —                           | —            |
| <b>Canada.....</b>         | <b>38,628</b>                 | <b>152,063</b> | <b>100.0</b>                | <b>100.0</b> |

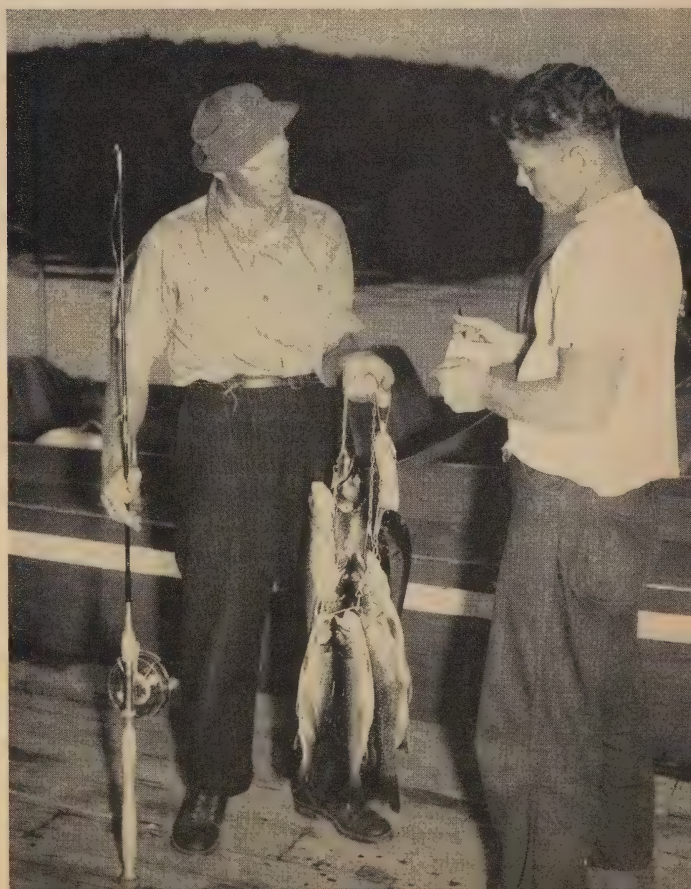
<sup>1</sup> Not collected before 1945.

The value of the equipment used in primary operations of the commercial fisheries in 1950 amounted to \$80,273,000. Of that amount, investment in vessels of all kinds constituted 64 p.c., in nets, traps, lines and other gear, 30 p.c., and in premises such as piers, wharves, freezers, icehouses, smoke-houses, etc., 6 p.c. Of the total investment in the agencies of primary production, 86 p.c. was employed by the sea fisheries.

### **Numbers, Employees and Production of Fish-Processing Establishments, 1939-50**

(Exclusive of Newfoundland)

| Year      | Establishments |                     | Employees |                     | Value of Production |                     | Value of Fish Marketed Fresh as P.C. of Total |
|-----------|----------------|---------------------|-----------|---------------------|---------------------|---------------------|-----------------------------------------------|
|           | No.            | P.C. of 1939 Figure | No.       | P.C. of 1939 Figure | \$'000              | P.C. of 1939 Figure |                                               |
| 1939..... | 523            | 100.0               | 14,814    | 100.0               | 28,817              | 100.0               | 28                                            |
| 1941..... | 463            | 88.5                | 15,842    | 106.9               | 48,176              | 167.2               | 24                                            |
| 1943..... | 523            | 100.0               | 15,899    | 107.3               | 64,805              | 224.9               | 33                                            |
| 1945..... | 540            | 103.3               | 17,501    | 118.1               | 93,545              | 324.6               | 41                                            |
| 1947..... | 594            | 113.6               | 18,631    | 125.8               | 105,206             | 365.1               | 33                                            |
| 1949..... | 599            | 114.5               | 16,087    | 108.6               | 111,919             | 388.4               | 36                                            |
| 1950..... | 591            | 113.0               | 14,861    | 100.3               | 128,424             | 445.6               | 36                                            |



Creel census information is recorded to determine the percentage survival of different species of hatchery-raised fish planted in certain lakes and to determine to what extent the removal of coarse fish improves the catch of more desirable species.





*Furs produced and finished in Canada are second to none in beauty and utility.*

## Furs

THE fur industry was at one time the most vigorous and remunerative industry in Canada and it still contributes many millions of dollars annually to the national income. Although fur-farming has developed rapidly during the present century, wild fur-bearers still provide well over half the income from raw furs. Wild fur-bearers are taken in moderate numbers in the settled areas of the country but the populations of such animals have been so reduced by the advance of settlement that the principal trapping areas now lie in the northern parts of the provinces and in the Northwest Territories.

The trapper's problems are caused by the vagaries of both nature and man. Most wild animals, including some important fur-bearers, are subject to marked fluctuations in numbers from year to year, which notably affects the numbers of pelts taken. The 'take' is also dependent on fluctuations in demand and in price consequent on change in fashion. Thus, the vogue of recent years for short-haired furs caused a decrease in demand for fox and other long-haired pelts and a corresponding decrease in the number of such pelts taken by the trapper. In areas where these furs were once a staple source of income, this change has resulted in serious hardship. Although this is one problem that cannot be solved by wildlife-management practices, other conservation and rehabilitation measures are receiving increasing attention from federal and provincial authorities. Scientific studies of many species are being made to determine the principal factors controlling their numbers, the optimum annual harvest that should be taken and the best methods of increasing that harvest. Among the controlling factors studied are food, shelter, weather, diseases, parasites and predators. In certain fur-producing districts, provincial and territorial authorities have instituted registration

Beaver in a live trap. The introduction of registered trap lines and the re-stocking of depleted areas in Manitoba, Ontario and Quebec are rapidly restoring the beaver to its historic importance in the fur world.



systems in accordance with which trap-lines or trapping areas are assigned to individuals on a constant basis. This system puts the responsibility on the registered trapper for the conservation of fur-bearers in his own area and has, in general, proved highly successful. Thus, many areas that had been depleted of fur-bearers have once again become productive.

### ***Pelts of Fur-Bearing Animals Taken, by Kinds, Years Ended June 30, 1950 and 1951***

(Exclusive of Newfoundland)

| Kind                     | 1950             |                   |               | 1951             |                   |               |
|--------------------------|------------------|-------------------|---------------|------------------|-------------------|---------------|
|                          | Pelts            | Total Value       | Average Value | Pelts            | Total Value       | Average Value |
|                          | No.              | \$                | \$            | No.              | \$                | \$            |
| Beaver.....              | 157,416          | 3,304,923         | 20.99         | 180,817          | 4,262,977         | 23.58         |
| Ermine (weasel).....     | 627,531          | 933,626           | 1.49          | 377,088          | 805,770           | 2.14          |
| Fisher.....              | 2,710            | 78,456            | 28.95         | 3,707            | 91,931            | 24.80         |
| Fox, silver.....         | 59,029           | 627,204           | 10.63         | 38,561           | 503,658           | 13.06         |
| Fox, new-type.....       | 21,923           | 271,950           | 12.40         | 11,749           | 171,684           | 14.61         |
| Fox, white.....          | 19,775           | 167,044           | 8.45          | 52,566           | 684,272           | 13.02         |
| Fox, other.....          | 31,806           | 59,522            | 1.87          | 45,193           | 107,675           | 2.38          |
| Marten.....              | 14,428           | 271,360           | 18.81         | 21,109           | 539,065           | 25.54         |
| Mink, standard.....      | 564,409          | 9,416,007         | 16.68         | 598,008          | 12,300,312        | 20.57         |
| Mink, mutation.....      | 103,278          | 1,461,034         | 14.15         | 107,288          | 2,317,723         | 21.60         |
| Muskrat.....             | 3,138,609        | 5,334,160         | 1.70          | 2,958,662        | 6,645,903         | 2.25          |
| Otter.....               | 11,555           | 242,465           | 20.98         | 13,567           | 374,007           | 27.57         |
| Squirrel.....            | 2,507,436        | 870,809           | 0.35          | 2,935,520        | 1,943,103         | 0.66          |
| Other <sup>1</sup> ..... | 117,586          | 145,473           | 1.24          | 135,437          | 386,320           | 2.85          |
| <b>Totals.....</b>       | <b>7,377,491</b> | <b>23,184,033</b> | <b>...</b>    | <b>7,479,272</b> | <b>31,134,400</b> | <b>...</b>    |

<sup>1</sup> Includes badger, bear, coyote, fitch, lynx, nutria, rabbit, raccoon, skunk, wildcat, wolf and wolverine.

Ontario leads the provinces in value of fur production. The numbers of pelts taken in Alberta, Manitoba and Saskatchewan are usually higher than in Ontario, but in those provinces the lower-priced furs such as muskrat, squirrel and ermine make up the major portion of the total, while in Ontario the more valuable mink and beaver pelts bring the value to a higher level.

### ***Pelts of Fur-Bearing Animals Taken, by Provinces, Years Ended June 30, 1949, 1950 and 1951***

| Province or Territory      | 1949             |                   | 1950             |                   | 1951             |                   |
|----------------------------|------------------|-------------------|------------------|-------------------|------------------|-------------------|
|                            | Pelts            | Value             | Pelts            | Value             | Pelts            | Value             |
|                            | No.              | \$                | No.              | \$                | No.              | \$                |
| Newfoundland.....          |                  |                   |                  |                   |                  |                   |
| Prince Edward Island.....  | 47,013           | 640,289           | 25,501           | 258,440           | 11,772           | 176,153           |
| Nova Scotia.....           | 234,364          | 612,032           | 88,000           | 309,872           | 356,827          | 611,979           |
| New Brunswick.....         | 77,232           | 398,982           | 55,315           | 394,905           | 27,814           | 170,670           |
| Quebec.....                | 555,245          | 2,388,065         | 528,411          | 2,814,846         | 465,893          | 3,370,829         |
| Ontario.....               | 1,119,957        | 5,661,318         | 936,313          | 6,199,228         | 1,042,208        | 8,210,658         |
| Manitoba.....              | 1,790,848        | 4,036,459         | 1,257,532        | 4,276,630         | 1,302,010        | 5,370,335         |
| Saskatchewan.....          | 1,667,008        | 2,248,441         | 1,050,766        | 2,359,444         | 875,901          | 2,805,972         |
| Alberta.....               | 2,788,864        | 3,761,727         | 2,191,979        | 3,830,095         | 1,861,860        | 5,280,952         |
| British Columbia.....      | 548,154          | 1,473,298         | 528,700          | 1,631,983         | 662,792          | 2,736,544         |
| Yukon Territory.....       | 151,969          | 143,810           | 153,574          | 199,086           | 228,616          | 361,969           |
| Northwest Territories..... | 922,136          | 1,535,461         | 561,400          | 909,504           | 643,579          | 2,038,339         |
| <b>Canada.....</b>         | <b>9,902,790</b> | <b>22,899,882</b> | <b>7,377,491</b> | <b>23,184,033</b> | <b>7,479,272</b> | <b>31,134,400</b> |





*Trapper digging through the snow to a beaver trap.*

## **Fur Farming**

Many types of animals are raised on fur farms across Canada, but mink and fox far outnumber all others. There were 3,492 farms operating in 1950, 2,557 of which reported 286,152 mink valued at \$8,408,379, and 985 of which reported 23,811 foxes valued at \$641,828. The decline in the popularity of the fox and the increase in the demand for high-quality and mutation mink has effected a great change in the fur-farming picture. The number of foxes on farms has shown an almost steady decline from 1937 when they numbered 157,053 compared with 23,811 in 1950, while mink

*White mink on a large ranch in Western Canada. The raising of mink is a highly specialized business that has now passed the experimental stage. However, the search for new mutations is never-ending.*





Canadian furs on exhibition at the 1952 International Trade Fair held at Brussels, Belgium

increased much more rapidly in the same period from 71,410 in 1937 to 286,152 in 1950. The present trend generally is towards fewer but more specialized farms, the former practice of raising a few animals, mostly foxes, as a side-line to other farming operations having practically disappeared. The raising of mink is an exacting business and is conducted mainly on scientifically managed farms. The production of this fur has passed the experimental stage and the industry is now placing emphasis on quality and new mutations.

The changeover in demand has also affected the geographical distribution of fur farms. The predominance once held by the Maritimes, where the most intensive fox farming was carried on, has shifted westward with the establishment there of mink farms. In 1950, British Columbia had 9.3 p.c. of the fur farms, the Prairie Provinces 37.0 p.c., Ontario 27.3 p.c., Quebec 16.1 p.c. and the Maritimes 10.3 p.c. In that year, 652,665 pelts valued at \$10,835,507 were sold from all fur farms, a decrease of 9 p.c. in number and an increase of 23 p.c. in value over 1949 sales. Average prices for all fox pelts were lower than in 1949 but mink increased by almost \$5 per skin.

### ***Fur Processing***

The value of production in the fur goods industry in 1950 at \$61,930,099 was 1.6 p.c. above the \$60,955,010 recorded for 1949 but was 6.7 p.c. below the record figure of \$66,384,085 reached in 1948. Ladies' fur coats, valued at \$45,951,198, accounted for almost 75 p.c. of the total value of production. The number made decreased by 8 p.c. but the average value advanced from \$218 in 1949 to \$239 in 1950. The industry employed 6,329 persons, 5 p.c. fewer than in 1949, but salaries and wages increased slightly from \$14,520,579 in 1949 to \$14,596,702 in 1950. The value of materials used was \$38,309,241 in 1950, 3 p.c. higher than in the previous year. There were also 22 fur-dressing and dyeing establishments in 1950 which paid out \$3,420,496 in salaries and wages to 1,633 employees.

### ***Fur Grading and Marketing***

All Canadian furs placed on the market are graded according to government standards, so that purchases may be made by grade without the necessity of personal examination by the buyer. Such grading offers many



advantages to the producer as well. Knowledge of the proper value of his pelts assists the rancher in raising his standards and improving the quality of his product. Grading is also of value in advancing the level of prices for high-quality pelts.

At the present time the United Kingdom and the United States are Canada's best customers for fur pelts, although Canadian furs have a world-wide distribution. Montreal is the leading fur market in Canada, but auction sales are also held at Vancouver, Edmonton, Regina and Winnipeg.

The Canadian fur trade, both export and import, is chiefly in undressed furs; the value of dressed and manufactured furs going out of Canada or coming in make up a comparatively small portion of the total. A large part of the exports consists, of course, of those furs which Canada produces in greatest abundance, mink being the most valuable followed by beaver, muskrat and fox. On the other hand, such furs as Persian lamb, certain types of muskrat and rabbit, which are not produced to any extent in Canada, make up the major portion of the imports.

*Exports and Imports of Raw and Dressed Furs, 1942-51*

| Year      | Exports <sup>1</sup> |               |               | Imports        |               |               |
|-----------|----------------------|---------------|---------------|----------------|---------------|---------------|
|           | United Kingdom       | United States | All Countries | United Kingdom | United States | All Countries |
|           | \$                   | \$            | \$            | \$             | \$            | \$            |
| 1942..... | 156,586              | 16,869,153    | 17,976,615    | 945,360        | 3,306,214     | 6,448,861     |
| 1943..... | 66,844               | 25,086,912    | 26,448,522    | 496,578        | 4,923,632     | 8,613,879     |
| 1944..... | 28,321               | 25,748,651    | 27,029,329    | 250,280        | 6,832,775     | 11,434,257    |
| 1945..... | 1,363,727            | 26,755,604    | 29,572,474    | 262,775        | 9,078,294     | 21,205,173    |
| 1946..... | 10,842,086           | 19,679,471    | 32,291,425    | 765,577        | 14,764,115    | 27,291,573    |
| 1947..... | 7,378,628            | 20,342,001    | 29,047,741    | 697,737        | 18,586,408    | 22,451,123    |
| 1948..... | 7,965,968            | 15,615,058    | 24,117,782    | 437,805        | 21,153,883    | 24,567,786    |
| 1949..... | 4,875,557            | 18,078,008    | 23,326,656    | 536,072        | 17,477,223    | 19,576,098    |
| 1950..... | 4,009,635            | 20,807,744    | 25,298,256    | 755,857        | 18,946,672    | 21,998,958    |
| 1951..... | 7,325,579            | 21,834,659    | 31,064,201    | 1,914,672      | 16,794,008    | 21,586,369    |

<sup>1</sup> Canadian produce only.

Processing muskrat pelts in a Manitoba fur-dressing and dyeing establishment.







A water-wheel generator shaft weighing over thirty tons being turned to precision limits.  
The operator is checking the coupling diameter with a micrometer.

# Manufactures

To appreciate the reality of increasing manufacturing production in Canada, it is necessary to consider the greatly expanded economic basis on which it stands. Historical events, such as the discovery of a major oil pool on the prairies, the discovery of large-scale deposits of iron and the successful search for uranium, have given new dimensions to Canadian thinking and business planning. That is the explanation of record-breaking capital expenditure year by year since the end of the War. It is not the mere rate of expansion that is significant. There have been other periods when Canada's population has grown more rapidly and in many respects the rate of industrial expansion was relatively as great in the late 1920's as it is now. The significance of the post-war years is that never before has there been an advance on such a broad industrial front. Canada is no longer on the fringes of industrialization but is now developing the essentials of an integrated and well-balanced economy.

*Statistics of Manufactures, 1870-1951*

| Year                    | Estab-<br>lish-<br>ments | Employees | Salaries<br>and<br>Wages | Cost<br>of<br>Materials | Net<br>Value of<br>Products <sup>1</sup> | Gross<br>Value of<br>Products |
|-------------------------|--------------------------|-----------|--------------------------|-------------------------|------------------------------------------|-------------------------------|
|                         | No.                      | No.       | \$'000                   | \$'000                  | \$'000                                   | \$'000                        |
| 1870 <sup>2</sup> ..... | 41,259                   | 187,942   | 40,851                   | 124,908                 | 96,710                                   | 221,618                       |
| 1880 <sup>2</sup> ..... | 49,722                   | 254,935   | 59,429                   | 179,919                 | 129,757                                  | 309,676                       |
| 1890 <sup>2</sup> ..... | 75,964                   | 369,595   | 100,415                  | 250,759                 | 219,089                                  | 469,848                       |
| 1900 <sup>2</sup> ..... | 14,650                   | 339,173   | 113,249                  | 266,528                 | 214,526                                  | 481,053                       |
| 1910 <sup>2</sup> ..... | 19,218                   | 515,203   | 241,008                  | 601,509                 | 564,467                                  | 1,165,976                     |
| 1920 <sup>2</sup> ..... | 22,157                   | 591,753   | 711,080                  | 2,083,580               | 1,609,169                                | 3,692,748                     |
| 1929.....               | 22,216                   | 666,531   | 777,291                  | 2,029,671               | 1,755,387                                | 3,883,446                     |
| 1933.....               | 23,780                   | 468,658   | 436,248                  | 967,789                 | 919,671                                  | 1,954,076                     |
| 1940.....               | 25,513                   | 762,244   | 920,873                  | 2,449,722               | 1,942,471                                | 4,529,173                     |
| 1943.....               | 27,652                   | 1,241,068 | 1,987,292                | 4,690,493               | 3,816,414                                | 8,732,861                     |
| 1944.....               | 28,483                   | 1,222,882 | 2,029,621                | 4,832,333               | 4,015,776                                | 9,073,693                     |
| 1945.....               | 29,050                   | 1,119,372 | 1,845,773                | 4,473,669               | 3,564,316                                | 8,250,369                     |
| 1946.....               | 31,249                   | 1,058,156 | 1,740,687                | 4,358,234               | 3,467,004                                | 8,035,692                     |
| 1947.....               | 32,734                   | 1,131,750 | 2,085,926                | 5,534,280               | 4,292,056                                | 10,081,027                    |
| 1948.....               | 33,447                   | 1,156,006 | 2,409,809                | 6,632,881               | 4,940,369                                | 11,876,790                    |
| 1949.....               | 35,792                   | 1,171,207 | 2,591,891                | 6,843,231               | 5,330,566                                | 12,479,593                    |
| 1950.....               | 35,942                   | 1,183,297 | 2,771,267                | 7,538,535               | 5,942,058                                | 13,817,526                    |
| 1951 <sup>3</sup> ..... | ..                       | 1,247,529 | 3,253,082                | 8,973,200               | 6,925,285                                | 16,270,931                    |

<sup>1</sup> For and since 1929 the figures for the net value of production represent the gross value less the cost of materials, fuel and electricity. Prior to this only the cost of materials is deducted.

From 1870 to 1890 and from 1920 to 1951 the figures include all establishments irrespective of the number of employees but exclude construction and custom and repair work.

<sup>3</sup> Includes all establishments employing five hands or over.

The second point to be observed is the changing emphasis of Canadian manufacturing activity. By 1949, the period of post-war conversion was passed and Canada had entered a new phase of economic expansion which derived its dynamic from the discovery of new resources and the application of new processes. This meant that even the sharp recession in the United States in 1949 failed to have significant effects in Canada. The influence of Korea and the consequent rearmament program gave an added impetus to the expansion of Canadian industry and the development of Canadian basic resources. Capital expenditures which contributed most to the defence of

Canada were given priority. Additional capacity was created to meet the requirements of the specialized defence program—aircraft, electronic equipment, ships and guns—a good deal of which had heretofore never been produced in Canada. Measures such as steel control, credit regulations and deferred depreciation had the desired effect. There was some increase in capital investment in physical terms in 1951 and 1952, but more significant was the change in composition. A pronounced shift took place towards the further expansion of basic industrial capacity and away from investment in consumer goods and services.

A third general observation should be made to the effect that current levels of manufacturing are based on business assessments of resources and market potentialities. Millions of dollars are being invested in oil because the prairies can produce oil as economically as other great fields on this Continent. Petro-chemical plants are being erected because the raw materials are readily at hand. The Kitimat project is based on the coincidence of abundant and cheap hydro power and access to ocean transportation, both of which are essential to the low-cost production of aluminum. The exploitation of the Ungava iron deposits rests on the belief that the steel industry of this Continent will need the high-grade ores involved in order to meet continuing peacetime demands. No other country is in a more favourable position than Canada to supply uranium for the production of atomic energy. Present plans of industry now under way or in the blueprint stage, while subject to market reverses, are sufficiently large to maintain the current capital outlay through to 1955. These projects will, of course, lead to other developments of which there is no inkling at present—for example, new ventures that might follow the completion of the St. Lawrence power and navigation development.

Finally, it should be emphasized that Canada's development as an industrial country is based upon and not independent of her position as a trading nation. Canada is sixth among the world's industrial powers and is the world's fourth largest trader. In 1951 Canada's exports earned 23 p.c.



*Fibreglass yarn being processed on a standard textile machine in a new plant at Guelph, Ont.*



*Giant forging press at Trenton, N.S., where some of the largest forgings in the world are made.*



of the national income and Canada's per capita trade at \$571 was more than that of any other country. At the same time, Canada's trading position has become more closely linked with North America, the United States taking nearly two-thirds of Canada's exports.

In 1951 Canadian manufacturing production exceeded the record of the previous year, rising from \$13,818,000,000 to an estimated \$16,271,000,000. Employees engaged in manufacturing totalled 1,247,529, slightly higher than in the previous year and salaries and wages paid reached approximately \$3,253,082,000, an increase of \$481,817,000. Cost of materials used advanced from \$7,538,531,000 to approximately \$8,973,200,000. Preliminary estimates of manufacturers' shipments, January-June 1952, show a level of \$8,260,211,000 as against \$8,095,014,000 for the same period in 1951.

When manufacturing enterprise is divided into the broad industrial components of the standard industrial classification, it is found that all groups, with the exception of tobacco and tobacco products, moved forward. The value of output of the industries in the foods and beverages group led the list at approximately \$3,405,114,000 in 1951 compared with \$3,029,810,000 in 1950. Iron and steel products ranked second with a value of production of \$1,903,727,000, paper products stood at approximately \$1,588,857,000, transportation equipment at \$1,535,718,000, non-ferrous metal products at \$1,251,908,000 and wood products at \$1,147,190,000.

**Leading Industries.**—Almost half the total value of production in 1950 was accounted for by the fifteen industries listed in the following table.

## Principal Statistics of Fifteen Leading Manufacturing Industries, 1950

| Industry                                                                  | Estab-<br>lish-<br>ments | Employees        | Salaries<br>and<br>Wages | Cost<br>of<br>Materials | Net<br>Value of<br>Products | Gross<br>Value of<br>Products |
|---------------------------------------------------------------------------|--------------------------|------------------|--------------------------|-------------------------|-----------------------------|-------------------------------|
|                                                                           | No.                      | No.              | \$'000                   | \$'000                  | \$'000                      | \$'000                        |
| Pulp and paper.....                                                       | 123                      | 52,343           | 169,246                  | 373,882                 | 511,142                     | 954,137                       |
| Slaughtering and meat-<br>packing.....                                    | 157                      | 20,522           | 54,532                   | 645,353                 | 107,701                     | 757,043                       |
| Motor-vehicles.....                                                       | 19                       | 29,355           | 94,414                   | 388,496                 | 284,785                     | 675,867                       |
| Non-ferrous metal smel-<br>ting and refining....                          | 17                       | 19,863           | 58,748                   | 428,697                 | 202,711                     | 669,882                       |
| Petroleum products....                                                    | 46                       | 10,056           | 30,557                   | 384,356                 | 107,371                     | 511,516                       |
| Sawmills.....                                                             | 7,551                    | 58,722           | 111,492                  | 252,321                 | 239,225                     | 496,948                       |
| Primary iron and steel..                                                  | 55                       | 29,051           | 85,411                   | 159,282                 | 154,542                     | 340,540                       |
| Butter and cheese.....                                                    | 1,806                    | 21,022           | 41,951                   | 250,017                 | 74,353                      | 330,709                       |
| Cotton yarn and cloth..                                                   | 51                       | 26,967           | 55,220                   | 157,835                 | 95,309                      | 257,383                       |
| Flour mills.....                                                          | 118                      | 4,903            | 11,917                   | 213,755                 | 31,836                      | 247,107                       |
| Rubber goods, including<br>footwear.....                                  | 61                       | 21,812           | 54,262                   | 101,773                 | 134,061                     | 239,184                       |
| Clothing, men's factory                                                   | 566                      | 32,853           | 59,301                   | 122,603                 | 103,346                     | 226,659                       |
| Motor-vehicle parts....                                                   | 151                      | 19,719           | 56,092                   | 122,088                 | 101,516                     | 226,539                       |
| Bread and other bakery<br>products.....                                   | 2,608                    | 31,149           | 60,073                   | 109,213                 | 98,412                      | 214,586                       |
| Clothing, women's<br>factory.....                                         | 914                      | 28,981           | 55,864                   | 102,712                 | 91,419                      | 194,636                       |
| <b>Totals, Fifteen Lead-<br/>ing Industries—<br/>1950.....</b>            | <b>14,243</b>            | <b>407,318</b>   | <b>999,080</b>           | <b>3,812,383</b>        | <b>2,337,729</b>            | <b>6,342,736</b>              |
| <b>Grand Totals, All In-<br/>dustries—<br/>1950.....</b>                  | <b>35,942</b>            | <b>1,183,297</b> | <b>2,771,267</b>         | <b>7,538,535</b>        | <b>5,942,058</b>            | <b>13,817,526</b>             |
| <b>1949.....</b>                                                          | <b>35,792</b>            | <b>1,171,207</b> | <b>2,591,891</b>         | <b>6,843,231</b>        | <b>5,330,566</b>            | <b>12,479,593</b>             |
| Percentages of Fifteen<br>Leading Industries to<br>All Industries 1950... | 39.6                     | 34.4             | 36.1                     | 50.6                    | 39.3                        | 45.9                          |

The largest industry—pulp and paper—which has been steadily expanding since the end of the War, is embarking on a further stage of development. From 1946 to 1951 the physical volume of production of the industry increased by one-third and new projects were under way or in an advanced state of planning. For example, in British Columbia a \$40,000,000 mill was nearing completion and projects involving around \$75,000,000 were under construction. Other multi-million-dollar plants were scheduled for Alberta, and significant additions to capacity were planned by a number of Ontario and Quebec companies. In 1951, a 5-p.c. increase was secured in newsprint production by speeding up machines and by more efficient plant operation. New mills contributed to a 20-p.c. increase in market pulp production and a 14-p.c. increase in the output of paperboard and papers other than newsprint. The gross value of production of this industry rose from \$954,000,000 in 1950 to an estimated \$1,238,000,000 in 1951. The industry ranks first in wages paid, first in new investment, first in exports as well as first in value of output. It produced one-quarter of the world's output of wood-pulp. Most of the production was processed domestically to provide 54 p.c. of the world's supply of newsprint.

Four industries in the foods and beverages group ranked among the 15 largest in Canada. Because of the basic importance of agriculture to the Canadian economy these industries are in the forefront of industrial activity. The raw products of the farm must be further processed in meat-packing plants, in canning factories, in milk, cheese and butter establishments or in

flour mills. The value of production of the slaughtering and meat-packing industry amounted to \$757,000,000 in 1950 and is expected to be about \$882,000,000 in 1951; butter and cheese production was valued at \$331,000,000 in 1950 and an estimated \$372,000,000 in 1951; flour-milling reported a gross value of production in 1950 of \$247,000,000 which is expected to rise to \$280,000,000 in 1951; the bread and other bakery products industry is expected to show a rise in gross value of output from \$215,000,000 in 1950 to approximately \$245,000,000 in 1951. In the post-war years, despite the virtual completion of war relief and emergency feeding programs, the food industries have continued to forge ahead. In 1951 farm income was the highest on record and agriculture's contribution to the Gross National Product of Canada was 30 p.c. higher than in 1950.

The manufacture of motor-vehicles was Canada's third largest industry in 1950 and the motor-vehicle parts industry ranked thirteenth. Gross value of production of motor-vehicles rose from \$676,000,000 in 1950 to about \$743,000,000 in 1951 when the productive capacity of the industry was nearly three times the pre-war capacity. In 1951 over 415,000 vehicles of all types were produced—a record number; in the same year retail sales of passenger cars amounted to \$683,000,000 and sales of commercial vehicles to \$267,000,000, both record highs. The trend of passenger-car ownership reflects the rising standard of living and the growth of the motor-vehicle industry: in 1939 there were 9.5 persons for each passenger car in the country and in 1951 an estimated 6.7 persons per passenger car. The development of the motor-vehicle parts industry also moved upward, production rising from \$227,000,000 in 1950 to an estimated \$262,000,000 in 1951.

The fourth leading industry—non-ferrous smelting and refining—had a gross value of production of \$670,000,000 in 1950 and an estimated production of \$861,000,000 in 1951. Canada has been the world's leading exporter of non-ferrous metals for over a decade and is also one of the world's leading producers of non-ferrous metals, standing first in the production of nickel,

*Beef-killing floor in an Edmonton packing plant. Mass production methods are used in this second largest of Canada's industries. Every operation is under scientific control and all meat is government inspected and graded.*





second in aluminum and zinc and fourth in copper and lead. The most important base-metal ore-bodies, at Sudbury, Ont., and Kimberley, B.C., were discovered before the turn of the century. They contain ores of two or more base metals intimately associated and frequently containing appreciable quantities of precious metals such as gold, silver and platinum. Present-day extraction methods are a triumph of modern techniques. Important new discoveries of non-ferrous metals include copper in the Gaspé Peninsula, copper-zinc ores at Chibougamau and zinc in Barraute Township in north-western Quebec, titanium at Allard Lake on the Gulf of St. Lawrence and nickel-copper at Lynn Lake in northern Manitoba.

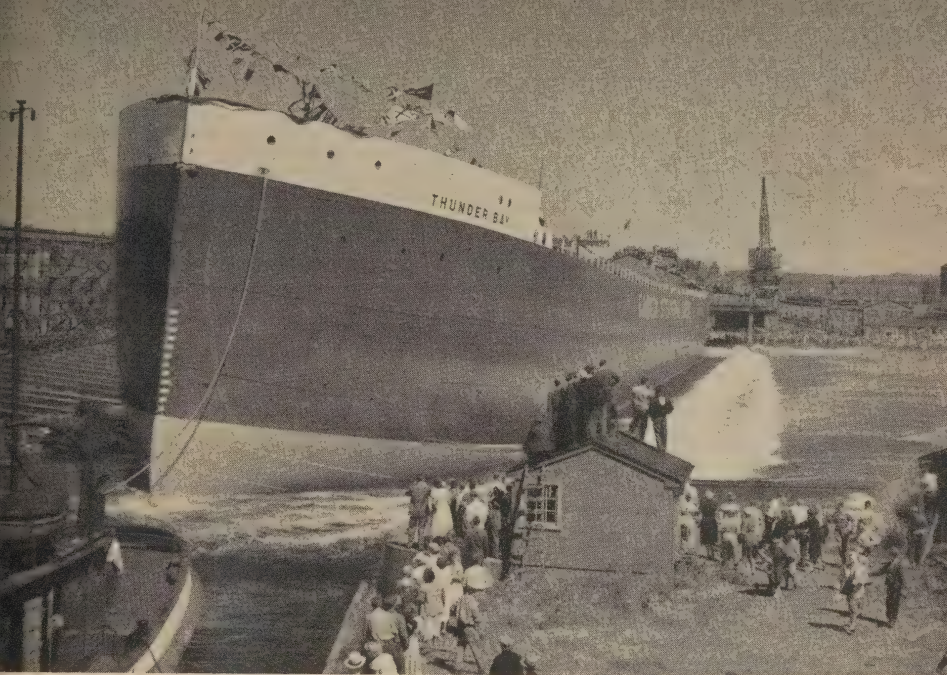
The fifth leading industry—petroleum products—grew from \$512,000,000 in 1950 to an estimated \$594,000,000 in 1951. In many respects petroleum has been Canada's most outstanding post-war development. Crude petroleum production almost quadrupled from 1947 to 1951 and refining capacity increased by 50 p.c.

For the Canadian lumber industry, 1951 was a year of near-record activity, the output of sawmills advancing from \$497,000,000 in 1950 to an estimated \$582,000,000. For most of the period since the end of the War, demand for sawmill products continued to exceed the available supply and, as a reflection, lumber prices more than doubled. During these years the annual lumber output averaged 6,200,000,000 bd. ft., a 60-p.c. increase over the average rate for the four years immediately prior to World War II.

Gross value of production of the primary iron and steel industry advanced from \$341,000,000 in 1950 to an estimated \$463,000,000 in 1951. The industry is making tremendous progress because of the expansion of iron-ore production; between 1945 and 1951 production of the Steep Rock mines increased from 500,000 tons to more than 1,300,000 tons and an annual 3,000,000-ton output is expected by 1955. Potentially more important are the developments presently taking place in the Quebec-Labrador area. When production in this field gets under way in 1954, Canada should rank among the six largest producers of iron ore in the world.



*The final assembly line in an automobile plant.*



*Launching a freighter at Port Arthur, Ont. There are fifteen shipyards located at different points on the Great Lakes engaged in the production of commercial vessels and in ship repair work.*

In the textile group, three industries ranked among the fifteen largest. The output of the cotton yarn and cloth industry advanced from \$257,000,000 in 1950 to an estimated \$272,000,000 in 1951, men's factory clothing from \$227,000,000 to an estimated \$241,000,000, while women's factory clothing remained at approximately \$195,000,000. The industry in 1951 was typical of other consumer goods industries which faced a market softening. Investment resources had been largely expended on the basic enlargement of industrial capacity and in the early post-war years production had been expanded to meet large backlogs of demand. The outbreak of hostilities in Korea provided another stimulus to sales but, as this precautionary buying subsided, idle capacity developed in some industries. The same condition in other industrialized countries resulted in an increase in competition in the Canadian market. The gross value of production of the textile industry rose by 85 p.c. between 1946 and 1950. New investment was high during those years and despite the considerable decline in production and sales from early 1951, planned investment in 1952 was up to the levels of the two previous years.

The gross value of production of the rubber goods industry advanced from \$239,000,000 in 1950 to an estimated \$312,000,000 in 1951. Canada ranks among the leading countries of the world as a manufacturer of rubber goods and the industry makes an important contribution to the country's



export trade. It should be pointed out, however, that much of the increase in 1951 was accounted for by price advances. While many kinds of rubber footwear were produced at a rate exceeding that of 1950, there was a decline in the physical production of some important items such as passenger car tires. The industry is practically confined to Ontario and Quebec with Ontario accounting for almost 70 p.c. of production and employment.

**Geographical Distribution.**—The Province of Ontario, which produces approximately half of the nation's manufactured goods, has established recognition as one of the world's major industrial areas. Its industrial production in the past ten years has more than doubled and has advanced in diversity as well as in volume. Practically all of Canada's output of motor-vehicles, agricultural implements and starch products comes from Ontario, as well as more than 50 p.c. of the iron and steel products, rubber goods, electrical apparatus and supplies, flour and feed mill products, hosiery and knitted goods, furniture, fruit and vegetable preparations and tannery products. Ontario is the only Canadian province to produce steam and gas turbines, spark plugs, stainless steel rolling-mill products, and radium products for commercial and medical use. Ontario's pulp and paper industry supplies about 13 p.c. of the world's total of newsprint and paper products.

Between 1946 and 1952 the number of manufacturing establishments in Ontario increased by 15.8 p.c. and the number of their employees by 24.1 p.c. In the same period the gross value of production increased by 129.7 p.c. in current dollars, or by 33.4 p.c. in constant dollars. Between 1946 and 1951, 504 new companies began operations in Ontario, giving employment at the end of 1951 to 32,953 people. Most of the new companies were Canadian in origin. In 1951, of 92 new undertakings, 46 were Canadian, 32 American, 9 British and 5 other European. Three factors have been decisive in the development of Ontario to its present industrial position: the proximity of raw materials, cheap hydro-electric power and a strategic location in relation to export markets not only on the North American Continent but overseas.

Quebec's importance may be illustrated by the fact that this Province has more than one-half of Canada's developed hydro-electric power—an installed and operating capacity at the end of 1951 of almost 7,000,000 h.p.—and more is under development. Quebec enjoys a wide variety of rich natural resources including most of the world's known reserves of asbestos, vast iron deposits, great reserves of copper, lead and zinc, the largest known supply of titanium, gold in abundance and new finds of oil underlying the rocks of her eastern extremity, the Gaspé Peninsula. In manufacturing, Quebec leads all the provinces in the production of textiles, chemicals and some heavy industry products. From her mills come one-third of the world's wood-pulp and one-fifth of its newsprint. Since the beginning of World War II, 5,600 new manufacturing establishments have come into the Province and, at the same time, agricultural productivity has continued to increase under the impact of modernized farming techniques. It is significant that the recent industrial expansion is not confined to the cities, but has spread through towns and villages all over the accessible areas of the Province. For example, since 1945 no less than 44 new industries, widely diversified, have settled in St. Johns, a city of 19,000 population situated about 20 miles from Montreal. Quebec's large industries cover a wide range including pulp and



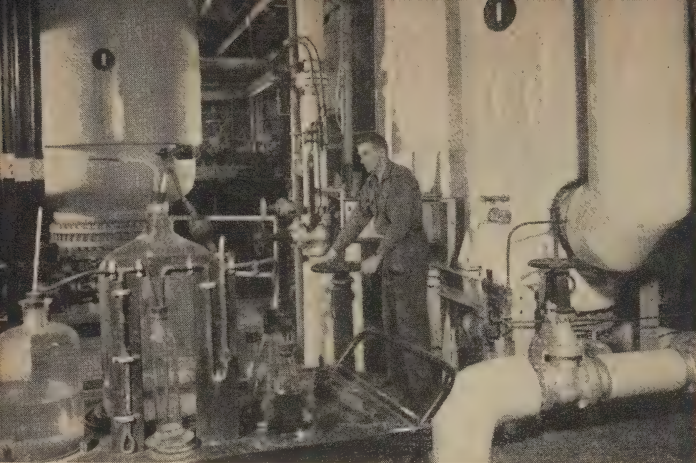


*Checking the level in an oil tank at an Alberta refinery.*

paper, tobacco, cigars and cigarettes, cotton yarn and cloth, leather boots and shoes, clothing, railway rolling-stock, silk and artificial silk, medicinal and pharmaceutical preparations and fur goods.

British Columbia's vast forest resources were responsible for the advance of that Province to third position in manufacturing but the industrial base is being constantly widened. In central British Columbia a large aluminum project is being carried out, a \$30,000,000 cellulose plant has been put into operation, and a new highway to the north is under construction. All over the Province, in the little towns, in the unorganized territories and in the major cities, the natural resources of the forest, mine and field are being fashioned by new and modern processes into goods and materials finding acceptance in domestic and foreign markets. In the past ten years the value of manufacturing production has more than trebled to a figure well in excess of \$1,000,000,000.

The Prairie Provinces are endowed with great natural resources above and below the ground—rich promises of oil, natural gas, uranium and base metals—flooding capital investment, new industry and a firm market outlook for peak agricultural production. During 1951, oil and gas discoveries came at the rate of better than one a week and estimated oil reserves soared to 1,700,000,000 bbl.; from Manitoba to the Rockies, natural gas and oil are helping to create a new industrial empire to rival the agricultural mainstays.



*Nitric acid production system in a large chemical plant.*

In Manitoba the value of manufacturing production established a new record in 1951, amounting to more than \$70,000,000 above 1950. From 1948 to 1951 new investment totalled \$58,600,000 and, during 1951, 25 new industries started operations in the Province, bringing the total since 1946 to 245. Secondary industry plays an important role in Saskatchewan's current activity with manufacturing production in the vicinity of \$250,000,000. Flour-milling, meat-packing, creameries and petroleum-refining make up the four well-developed secondary industries in the Province. Alberta, however, is the outstanding achievement of Prairie industrial expansion. In 1951, new construction starts on industrial development amounted to just under \$100,000,000 and in the foreseeable future to \$800,000,000 more. At the top of the list is the \$54,000,000 celanese plant at Edmonton, largest of its kind in the world. The Company's products will be cellulose acetate, various organic chemicals and synthetic yarn. There are many other projects in the same area, which is emerging as the heart of a new petro-chemical empire.

In the Atlantic Provinces the gross value of manufacturing production has more than tripled since 1939. Recently the fisheries industry has been completely revamped, forest products operations have been expanded and the steel and coal industry has been improved and enlarged. At the same time many new manufacturing projects have been successfully organized. In Newfoundland new economic development is influencing fishing, pulp and paper, mining and agriculture. Since 1949 new projects include a cement plant, gypsum plant, birch plant, heavy machinery plant, tannery, marine oil hardening plant, cotton textile mill, fur dyeing and processing plant, leather goods plant, chipped board plant and an optical plant. In Prince Edward Island there has been a broad advance on all economic fronts. In 1951 records were made in some branches of agriculture, particularly in creamery butter output, and there was steady progress in the fishing and lumbering industries. In Nova Scotia in that year primary industries were solving difficult problems and the expanded national defence program was influencing manufacturing industries. Orders for naval rotor forgings, shells and railroad cars were running into several million dollars and there was modernization in the basic coal, steel and fish-processing industries. In 1951 New Brunswick's three basic industries—agriculture, forest industries and commercial



fisheries—moved forward and there was new exploitation of mineral and power resources, the latter having an important bearing on cement production levels. There were also major extensions to many pulp and paper mills. The manufacturing industries based on wood, including sash and door factories, a veneer plant and a plywood plant, maintained a strong position.

*Statistics of Manufactures, by Provinces, 1950*

| Province or Territory                   | Estab-<br>lish-<br>ments | Employees | Salaries<br>and<br>Wages | Cost<br>of<br>Materials | Net<br>Value of<br>Products | Gross<br>Value of<br>Products |
|-----------------------------------------|--------------------------|-----------|--------------------------|-------------------------|-----------------------------|-------------------------------|
|                                         | No.                      | No.       | \$'000                   | \$'000                  | \$'000                      | \$'000                        |
| Newfoundland.....                       | 850                      | 6,682     | 16,246                   | 31,506                  | 36,712                      | 71,063                        |
| Prince Edward Island..                  | 244                      | 1,786     | 2,342                    | 15,243                  | 4,284                       | 19,811                        |
| Nova Scotia.....                        | 1,482                    | 28,479    | 54,888                   | 147,131                 | 97,780                      | 255,887                       |
| New Brunswick.....                      | 1,107                    | 23,863    | 46,386                   | 148,066                 | 106,204                     | 263,753                       |
| Quebec.....                             | 11,670                   | 390,163   | 851,336                  | 2,225,476               | 1,798,320                   | 4,142,473                     |
| Ontario.....                            | 12,809                   | 566,513   | 1,412,999                | 3,598,821               | 3,068,141                   | 6,822,954                     |
| Manitoba.....                           | 1,507                    | 40,985    | 88,701                   | 300,386                 | 177,052                     | 485,906                       |
| Saskatchewan.....                       | 887                      | 10,596    | 23,010                   | 164,557                 | 49,494                      | 218,080                       |
| Alberta.....                            | 1,671                    | 26,732    | 58,416                   | 272,131                 | 123,893                     | 402,840                       |
| British Columbia.....                   | 3,696                    | 87,375    | 216,657                  | 634,178                 | 479,606                     | 1,133,017                     |
| Yukon and Northwest<br>Territories..... | 19                       | 123       | 286                      | 1,039                   | 569                         | 1,741                         |
| Canada.....                             | 35,942                   | 1,183,297 | 2,771,267                | 7,538,535               | 5,942,058                   | 13,817,526                    |

The atom is becoming a servant of industry. In scores of plants, pictures are being taken and materials measured by the use of nuclear fission by-products. The instrument shown here maintains a continuous check on the thickness of paper rolling off a paper-making machine and controls the adjustment process.





**Manufacturing Industries in Urban Centres.**—The extent to which the manufacturing industries of Canada are concentrated in urban centres is indicated by the fact that, in 1950, in each of the Provinces of Quebec and Ontario, 94 p.c. of the gross manufacturing production was contributed by cities and towns having a gross production of over \$1,000,000 each. In the Atlantic Provinces and British Columbia the proportions were 69 and 60 p.c., respectively. In the Prairie Provinces manufacturing is confined largely to a few urban centres.

**Urban Centres with Gross Manufacturing Production of Over  
\$50,000,000 in 1950**

NOTE.—Arvida, Que., and Copper Cliff, Oshawa and Port Colborne, Ont., may not be shown.

| Urban Centre               | Estab-<br>lish-<br>ments | Employees | Salaries<br>and<br>Wages | Cost of<br>Fuel and<br>Electricity | Cost<br>of<br>Materials | Gross<br>Value of<br>Products |
|----------------------------|--------------------------|-----------|--------------------------|------------------------------------|-------------------------|-------------------------------|
|                            | No.                      | No.       | \$'000                   | \$'000                             | \$'000                  | \$'000                        |
| Montreal, Que.....         | 4,127                    | 184,982   | 419,218                  | 17,034                             | 914,907                 | 1,696,677                     |
| Toronto, Ont.....          | 4,011                    | 160,063   | 392,754                  | 18,177                             | 918,699                 | 1,686,923                     |
| Hamilton, Ont.....         | 549                      | 54,823    | 145,093                  | 18,862                             | 310,380                 | 625,481                       |
| Windsor, Ont.....          | 280                      | 34,901    | 105,778                  | 4,968                              | 311,563                 | 564,870                       |
| Vancouver, B.C.....        | 1,219                    | 34,411    | 85,543                   | 4,895                              | 234,053                 | 409,347                       |
| Montreal East, Que.....    | 25                       | 4,952     | 13,575                   | 11,463                             | 239,798                 | 318,204                       |
| Winnipeg, Man.....         | 855                      | 27,804    | 58,991                   | 3,087                              | 142,487                 | 261,781                       |
| Sarnia, Ont.....           | 49                       | 7,512     | 21,243                   | 11,096                             | 99,740                  | 169,803                       |
| Kitchener, Ont.....        | 195                      | 14,934    | 34,412                   | 1,779                              | 86,462                  | 159,409                       |
| London, Ont.....           | 275                      | 15,781    | 37,264                   | 2,045                              | 77,887                  | 158,624                       |
| Quebec, Que.....           | 434                      | 14,810    | 27,329                   | 3,564                              | 72,615                  | 134,262                       |
| Brantford, Ont.....        | 150                      | 13,544    | 33,291                   | 1,792                              | 61,751                  | 125,828                       |
| New Toronto, Ont.....      | 37                       | 6,589     | 19,091                   | 1,689                              | 67,336                  | 124,431                       |
| Calgary, Alta.....         | 284                      | 7,910     | 18,509                   | 1,678                              | 89,078                  | 122,767                       |
| Edmonton, Alta.....        | 292                      | 8,638     | 20,300                   | 939                                | 82,053                  | 119,448                       |
| St. Boniface, Man.....     | 85                       | 4,097     | 10,423                   | 927                                | 92,795                  | 114,751                       |
| Peterborough, Ont.....     | 98                       | 9,724     | 24,537                   | 1,202                              | 63,570                  | 111,446                       |
| Sault Ste. Marie, Ont..... | 54                       | 7,343     | 20,959                   | 9,128                              | 58,222                  | 109,521                       |
| St. Catharines, Ont.....   | 111                      | 10,415    | 29,679                   | 1,522                              | 48,063                  | 105,507                       |
| Leaside, Ont.....          | 50                       | 8,918     | 23,483                   | 1,070                              | 51,268                  | 101,285                       |
| Welland, Ont.....          | 58                       | 8,016     | 23,657                   | 4,233                              | 45,414                  | 97,308                        |
| Three Rivers, Que.....     | 80                       | 6,979     | 17,122                   | 6,204                              | 38,886                  | 92,901                        |
| New Westminster, B.C.....  | 114                      | 6,313     | 16,162                   | 926                                | 50,492                  | 92,790                        |
| Shawinigan Falls, Que..    | 45                       | 4,863     | 13,279                   | 7,216                              | 34,201                  | 84,011                        |
| Ottawa, Ont.....           | 268                      | 9,800     | 22,539                   | 1,761                              | 37,037                  | 80,886                        |
| Niagara Falls, Ont.....    | 81                       | 6,106     | 16,428                   | 4,941                              | 31,992                  | 77,563                        |
| Lasalle, Que.....          | 36                       | 3,567     | 8,684                    | 4,348                              | 38,166                  | 75,933                        |
| Sherbrooke, Que.....       | 100                      | 8,107     | 16,178                   | 1,158                              | 34,978                  | 70,059                        |
| Chatham, Ont.....          | 72                       | 3,879     | 9,723                    | 1,132                              | 47,782                  | 67,981                        |
| Drummondville, Que.....    | 46                       | 8,499     | 18,140                   | 1,714                              | 24,144                  | 67,309                        |
| Cornwall, Ont.....         | 52                       | 6,811     | 16,276                   | 3,351                              | 25,463                  | 63,605                        |
| Saint John, N.B.....       | 107                      | 3,314     | 6,629                    | 1,052                              | 44,813                  | 62,271                        |
| Lachine, Que.....          | 54                       | 6,886     | 19,263                   | 1,020                              | 24,425                  | 61,865                        |
| Sydney, N.S.....           | 38                       | 5,745     | 15,380                   | 4,883                              | 29,555                  | 57,615                        |
| Saskatoon, Sask.....       | 113                      | 2,715     | 6,045                    | 739                                | 42,269                  | 57,158                        |
| Regina, Sask.....          | 132                      | 2,977     | 7,086                    | 1,293                              | 40,169                  | 54,806                        |
| Kingston, Ont.....         | 70                       | 5,168     | 12,175                   | 1,219                              | 24,626                  | 53,571                        |
| Guelph, Ont.....           | 106                      | 6,081     | 13,725                   | 990                                | 26,406                  | 51,890                        |

## Employment in Manufactures

The upswing of employment in manufacturing, which dated from the outbreak of hostilities in Korea in 1950, raised the index in the early months of 1952 to a level which for the time of year was exceeded only in the period of intensified wartime activity in 1943-45. Although the index showed month-to-month increases from Feb. 1 to Oct. 1, the figure from Apr. 1 to July 1 was slightly lower than in the corresponding period a year earlier. Curtailment of activity in certain consumer non-durable goods (notably

textiles, clothing and leather products), a slackening in some of the durable manufactured goods industries as a result of steel shortages, and important labour-management disputes contributed materially to the minor falling-off. From Aug. 1, however, the 1952 index was above its position in the same month in 1951, although it continued below the wartime peak. Production for defence needs was an important factor in the substantial volume of employment afforded in manufacturing during the year.

Weekly wages and salaries reached an all-time maximum in 1952, reflecting widespread upward revisions in wage rates. An advance in the numbers and proportions of more highly-paid workers also contributed to the higher payrolls. The payroll index rose by 10.4 p.c. in the first nine months of 1952 and the accompanying gain in employment in manufacturing was 0.1 p.c. The average weekly wages and salaries mounted by 10.3 p.c. in 1952 over 1951, previously the peak.

The hours reported in manufacturing averaged less than in the preceding year, reflecting, in part, a trend towards shorter standard hours. Other factors contributing to the reduced averages included lower levels of activity in several industries and in some cases labour-management disputes.

### Monthly Indexes of Employment in Manufacturing, 1946-52

(1939=100)

| Month        | 1946  | 1947  | 1948  | 1949  | 1950  | 1951  | 1952  |
|--------------|-------|-------|-------|-------|-------|-------|-------|
| Jan. 1.....  | 154.9 | 163.6 | 172.0 | 174.0 | 171.0 | 182.4 | 183.6 |
| Feb. 1.....  | 157.4 | 166.7 | 172.6 | 173.8 | 170.4 | 184.5 | 185.2 |
| Mar. 1.....  | 157.2 | 167.1 | 174.1 | 174.2 | 171.5 | 186.3 | 187.3 |
| Apr. 1.....  | 159.2 | 167.7 | 173.5 | 174.2 | 172.0 | 188.8 | 188.3 |
| May 1.....   | 160.3 | 168.2 | 173.2 | 174.4 | 172.5 | 189.9 | 188.7 |
| June 1.....  | 158.7 | 169.7 | 174.6 | 175.8 | 175.3 | 192.0 | 190.9 |
| July 1.....  | 160.8 | 172.2 | 177.9 | 177.7 | 178.6 | 193.9 | 191.4 |
| Aug. 1.....  | 157.9 | 173.8 | 177.1 | 176.7 | 179.6 | 194.0 | 194.1 |
| Sept. 1..... | 160.5 | 174.8 | 179.7 | 179.1 | 182.5 | 194.1 | 198.5 |
| Oct. 1.....  | 161.7 | 175.0 | 180.3 | 178.7 | 185.6 | 194.2 | 200.8 |
| Nov. 1.....  | 164.8 | 176.5 | 178.9 | 177.0 | 185.4 | 190.8 | 199.8 |
| Dec. 1.....  | 167.0 | 176.5 | 178.5 | 175.2 | 185.3 | 189.1 | 199.4 |

### Average Hours and Earnings in Manufacturing, by Months, 1951 and 1952

| Month             | Average Hours Worked |      | Average Hourly Earnings |       | Average Weekly Wages |       |
|-------------------|----------------------|------|-------------------------|-------|----------------------|-------|
|                   | 1951                 | 1952 | 1951                    | 1952  | 1951                 | 1952  |
|                   | No.                  | No.  | cts.                    | cts.  | \$                   | \$    |
| Jan. 1.....       | 40.1                 | 38.1 | 109.0                   | 127.1 | 43.71                | 48.43 |
| Feb. 1.....       | 42.9                 | 41.6 | 110.4                   | 127.1 | 47.36                | 52.87 |
| Mar. 1.....       | 42.3                 | 41.7 | 111.4                   | 127.8 | 47.12                | 53.29 |
| Apr. 1.....       | 42.2                 | 42.1 | 112.8                   | 129.0 | 47.60                | 54.31 |
| May 1.....        | 42.5                 | 41.9 | 114.1                   | 129.4 | 48.49                | 54.22 |
| June 1.....       | 41.9                 | 41.3 | 115.9                   | 129.7 | 48.56                | 53.57 |
| July 1.....       | 41.7                 | 41.3 | 118.4                   | 128.6 | 49.37                | 53.11 |
| Aug. 1.....       | 41.4                 | 41.1 | 119.1                   | 128.9 | 49.31                | 52.98 |
| Sept. 1.....      | 41.5                 | 41.6 | 120.6                   | 129.5 | 50.05                | 53.87 |
| Oct. 1.....       | 41.9                 | 42.1 | 121.9                   | 129.9 | 51.08                | 54.69 |
| Nov. 1.....       | 41.8                 | 42.1 | 123.5                   | 130.9 | 51.62                | 55.11 |
| Dec. 1.....       | 41.9                 | 42.5 | 124.5                   | 132.1 | 52.17                | 56.14 |
| Twelve Months.... | 41.8                 | 41.5 | 116.8                   | 129.2 | 48.87                | 53.62 |





# Capital Expenditures

CAPITAL expenditures are those outlays made to augment and to replace the nation's stock of physical capital. This stock of capital is represented by such things as factory buildings, mines, stores, theatres, railways, telephone lines, power installations and the machinery and equipment used therewith to enable the workers to produce with greater efficiency an increasing volume of goods and services. Included, as well, in the capital stock are government-owned assets of a physical nature such as roads, canals and office buildings and all houses whether rented or owner-occupied. Excluded from capital expenditures are outlays for the accumulation of inventories and for the acquisition of land.

Capital assets are designed to last and assist in providing goods and services over a period of years; some types of assets, such as motors, may have a useful life of a very few years while others, such as buildings or power installations, may continue in profitable use for fifty years or more. The creation of these capital goods involves the diversion of resources from producing such items as food and clothing which give immediate satisfaction to the production of capital goods which will produce only items for the satisfaction of consumers over a period of future years. Thus, the extent of investment spending in the nation reflects the extent to which the nation is providing for the future, or is becoming industrialized; it also reflects the opinion of businessmen as to future prospects and of governments as to future demands for their services. It will be noted from the following table that since 1926 there have been two periods when capital spending accounted for a substantial portion of gross national product.

*Capital Expenditures in Canada, 1926-53*

| Year      | Value      | P.C. of Gross<br>National<br>Product | Year                    | Value      | P.C. of Gross<br>National<br>Product |
|-----------|------------|--------------------------------------|-------------------------|------------|--------------------------------------|
|           | \$'000,000 |                                      |                         | \$'000,000 |                                      |
| 1926..... | 917        | 17.3                                 | 1940.....               | 1,048      | 15.3                                 |
| 1927..... | 1,087      | 19.2                                 | 1941.....               | 1,463      | 17.2                                 |
| 1928..... | 1,296      | 21.2                                 | 1942.....               | 1,542      | 14.6                                 |
| 1929..... | 1,518      | 24.6                                 | 1943.....               | 1,485      | 13.3                                 |
| 1930..... | 1,287      | 23.2                                 | 1944.....               | 1,309      | 11.0                                 |
| 1931..... | 881        | 19.3                                 | 1945.....               | 1,284      | 10.8                                 |
| 1932..... | 491        | 13.0                                 | 1946.....               | 1,703      | 14.2                                 |
| 1933..... | 327        | 9.2                                  | 1947.....               | 2,489      | 18.1                                 |
| 1934..... | 416        | 10.3                                 | 1948.....               | 3,175      | 20.3                                 |
| 1935..... | 505        | 11.6                                 | 1949.....               | 3,502      | 21.3                                 |
| 1936..... | 590        | 12.6                                 | 1950.....               | 3,815      | 21.2                                 |
| 1937..... | 828        | 15.5                                 | 1951.....               | 4,577      | 21.3                                 |
| 1938..... | 773        | 14.8                                 | 1952.....               | 5,122      | 22.3                                 |
| 1939..... | 765        | 13.4                                 | 1953 <sup>a</sup> ..... | 5,421      | 22.8                                 |

In the period from 1926 to 1930 investment accounted, on the average, for 21 p.c. of gross national product; in the period from 1947 to 1952 the average was also 21 p.c. However, in the latter period a high level of investment spending was maintained over a longer period with investment exceeding



*Toronto's subway takes shape. Workmen lay ballast and rails along an open cut while others are busy completing the biggest ground-cover project on the continent.*

20 p.c. of gross national product in five of the six years while in the earlier period 20 p.c. was only exceeded in three of the five years considered. In the latter period, too, investment was at a much higher level than during 1926-30. Expenditures in 1952 were, in dollar terms, three and one-half times those of 1929. Even if allowance is made for doubling of prices between the two years, the volume of investment was still some two-thirds greater.

In addition to its significance to the long-run industrialization of the country, investment spending is very important in the year in which it is made in giving employment and income to those providing capital facilities.

The most important immediate beneficiary of the investment program is the construction industry. Of total capital spending of \$4,577,000,000 in 1951 about \$2,700,000,000 was spent for new houses, other new buildings and new structures of various kinds. In addition, about \$900,000,000 was expended for repairs to existing structures. Thus, as estimated in the capital expenditure surveys, a total of \$3,600,000,000 was spent on all types of construction in 1951. This information is supplied by agencies or bodies paying for the construction work being done. Other information on construction is collected from companies and individuals actually doing the construction work and this is given in the table following. The total value of all construction in 1951 is given in the table as \$3,299,070,000, about \$300,000,000

below the capital expenditure estimate, due to incomplete coverage. However, the table contains useful information on numbers employed, salaries and wages paid and value of materials used, which data may be obtained only from those actually engaged in construction work.

The balance of new investment spending in 1951, amounting to \$1,842,000,000, went for purchases of new machinery and equipment, providing employment and incomes in the manufacturing industries producing such machinery.

### *Principal Statistics of the Construction Industry, 1950 and 1951*

| Classification and Year                                  | Salaried Employees and Wage-Earners | Salaries and Wages Paid | VALUE OF WORK PERFORMED |                                      |                      |
|----------------------------------------------------------|-------------------------------------|-------------------------|-------------------------|--------------------------------------|----------------------|
|                                                          |                                     |                         | New Construction        | Alterations, Maintenance and Repairs | Total Value          |
|                                                          | No.                                 | \$                      | \$                      | \$                                   | \$                   |
| Contractors and builders.....                            |                                     |                         |                         |                                      |                      |
| 1950                                                     | 213,078                             | 523,255,178             | 1,419,721,174           | 199,635,484                          | 1,619,356,658        |
| 1951                                                     | 240,386                             | 659,119,823             | 1,924,163,964           | 206,083,623                          | 2,130,247,587        |
| Owner builders....                                       |                                     |                         |                         |                                      |                      |
| 1950                                                     | 15,180                              | 35,040,818              | 111,263,354             | 528,911                              | 111,792,265          |
| 1951                                                     | 11,378                              | 26,731,916              | 85,620,172              | 397,341                              | 86,017,513           |
| Industrial organizations....                             |                                     |                         |                         |                                      |                      |
| 1950                                                     | 12,782                              | 39,495,562              | 134,158,133             | 33,946,763                           | 168,104,896          |
| 1951                                                     | 14,634                              | 49,834,770              | 130,913,185             | 42,018,817                           | 172,932,002          |
| Steam and electric railways.....                         |                                     |                         |                         |                                      |                      |
| 1950                                                     | 46,365                              | 100,223,345             | 39,420,651              | 162,040,128                          | 201,460,779          |
| 1951                                                     | 49,454                              | 117,719,304             | 45,284,178              | 177,260,878                          | 222,545,056          |
| Hydro-electric power and public utility commissions..... |                                     |                         |                         |                                      |                      |
| 1950                                                     | 29,558                              | 71,701,163              | 238,570,963             | 22,629,778                           | 261,200,741          |
| 1951                                                     | 25,745                              | 71,952,182              | 227,434,169             | 24,950,691                           | 252,384,860          |
| Telephone companies.....                                 |                                     |                         |                         |                                      |                      |
| 1950                                                     | 13,909                              | 41,276,627              | 71,537,381              | 36,809,901                           | 108,347,282          |
| 1951                                                     | 14,682                              | 46,960,586              | 81,464,560              | 42,890,823                           | 124,355,383          |
| Federal Government departments.....                      |                                     |                         |                         |                                      |                      |
| 1950                                                     | 14,081                              | 32,393,769              | 43,491,067              | 22,135,791                           | 65,626,858           |
| 1951                                                     | 16,712                              | 44,027,748              | 59,321,962              | 31,139,236                           | 90,461,198           |
| Provincial government departments.....                   |                                     |                         |                         |                                      |                      |
| 1950                                                     | 22,990                              | 43,921,144              | 65,591,969              | 51,273,935                           | 116,865,904          |
| 1951                                                     | 30,468                              | 52,945,695              | 68,303,666              | 57,423,399                           | 125,727,065          |
| Municipalities.....                                      |                                     |                         |                         |                                      |                      |
| 1950                                                     | 15,606                              | 32,239,719              | 46,414,295              | 28,798,032                           | 75,212,327           |
| 1951                                                     | 16,932                              | 39,718,653              | 59,747,554              | 34,651,969                           | 94,399,523           |
| <b>Totals.....</b>                                       |                                     |                         |                         |                                      |                      |
| 1950                                                     | <b>383,549</b>                      | <b>919,547,325</b>      | <b>2,170,168,987</b>    | <b>557,798,723</b>                   | <b>2,727,967,710</b> |
| 1951                                                     | <b>420,391</b>                      | <b>1,109,010,677</b>    | <b>2,682,253,410</b>    | <b>616,816,777</b>                   | <b>3,299,070,187</b> |

Of immediate interest is the investment pattern in the post-war years and the outlook for 1953. During the post-war period, investment by all sectors, with the exception of consumer goods manufacturing, has been well above the pre-war peak of 1929 in terms of dollars. The extractive industries which accounted for about 14 p.c. of investment in 1929 now account for from 16 to 18 p.c. This reflects both the heavy investment being made currently in the mining industry, particularly in the field of petroleum, and the rapid mechanization taking place in agriculture. The present increased emphasis on social welfare is indicated by the larger portion of investment being made by institutions. The same movement probably accounts for the increased shares of investment made by governments and for housing. The bulk of these increases have been at the expense of investment in consumer goods manufacturing.



# **Capital Expenditures and Percentage Distribution, by Sectors, 1950-53 and Significant Years 1929-46**

| Sector                                 | 1929         | 1933         | 1942         | 1946         | 1950         | 1951         | 1952         | 1953         |
|----------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Value in millions of dollars           |              |              |              |              |              |              |              |              |
| Extractive industries <sup>1</sup> ... | 216          | 38           | 148          | 267          | 697          | 820          | 883          | 882          |
| Consumer goods manufacturing.....      | 237          | 27           | 62           | 151          | 204          | 254          | 219          | 198          |
| Other manufacturing.....               | 137          | 15           | 324          | 187          | 298          | 539          | 723          | 693          |
| Utilities.....                         | 344          | 55           | 202          | 251          | 720          | 900          | 1,097        | 1,143        |
| Service industries.....                | 131          | 22           | 62           | 137          | 397          | 412          | 317          | 431          |
| Institutions.....                      | 54           | 15           | 16           | 74           | 208          | 236          | 255          | 305          |
| Housing.....                           | 247          | 76           | 223          | 412          | 845          | 821          | 850          | 981          |
| Government.....                        | 152          | 79           | 505          | 224          | 446          | 595          | 778          | 788          |
| <b>Totals.....</b>                     | <b>1,518</b> | <b>327</b>   | <b>1,542</b> | <b>1,703</b> | <b>3,815</b> | <b>4,577</b> | <b>5,122</b> | <b>5,421</b> |
| Percentage Distribution                |              |              |              |              |              |              |              |              |
| Extractive industries....              | 14.2         | 11.6         | 9.6          | 15.7         | 18.3         | 17.9         | 17.2         | 16.3         |
| Consumer goods manufacturing.....      | 15.6         | 8.3          | 4.0          | 8.9          | 5.3          | 5.5          | 4.3          | 3.6          |
| Other manufacturing.....               | 9.0          | 4.6          | 21.0         | 11.0         | 7.8          | 11.8         | 14.1         | 12.8         |
| Utilities.....                         | 22.7         | 16.8         | 13.1         | 14.7         | 18.9         | 19.7         | 21.4         | 21.1         |
| Service industries.....                | 8.6          | 6.7          | 4.0          | 8.0          | 10.4         | 9.0          | 6.2          | 8.0          |
| Institutions.....                      | 3.6          | 4.6          | 1.0          | 4.3          | 5.5          | 5.2          | 5.0          | 5.6          |
| Housing.....                           | 16.3         | 23.2         | 14.5         | 24.3         | 22.1         | 17.9         | 16.6         | 18.1         |
| Government.....                        | 10.0         | 24.2         | 32.8         | 13.1         | 11.7         | 13.0         | 15.2         | 14.5         |
| <b>Totals.....</b>                     | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> |

<sup>1</sup>Includes agriculture, fishing, forestry, mining and the construction industry.

Within the post-war years, two investment patterns are noticeable, one covering the period from 1946 to 1950 and the other the period from 1951. Investment in the years up to 1950 was largely concentrated on conversion from a wartime to a peacetime economy and provision of the facilities to produce the goods and services, the demand for which had been built up during the depression and war years. In the early years of the period the concentration was on investment in manufacturing industries; in the later years investment by institutions and service industries increased their share of the total. Throughout the whole period the extractive industries and utilities each year increased their share of the investment program, reflecting the increasing foreign and domestic demand for Canada's primary products, and the longer-run developments in hydro, transportation and communications facilities.

Events following the outbreak of hostilities in Korea placed different demands upon the economy and this is reflected in the change in the investment patterns in 1951 and 1952. In these years investment for defence and defence-supporting industries took precedence. This emphasis was facilitated by government measures which gave priorities in scarce materials to industries considered essential to defence and which forbade the charging of depreciation against capital assets acquired for less-essential purposes. Other measures discouraged, to some extent, house-building activity. As a result, in both 1951 and 1952, the share of investment accounted for by heavy manufacturing industries, utilities and government rose rapidly with declines being evident in service industries and in house-building.

The following table shows current capital expenditures by type. The 1953 figures are estimates based on surveys of capital expenditure intentions.

## Capital Expenditures, by Type, 1951-53

| Type                                 | Capital Expenditures<br>(\$'000,000) |              |              | Percentage Distribution |              |              |
|--------------------------------------|--------------------------------------|--------------|--------------|-------------------------|--------------|--------------|
|                                      | 1951                                 | 1952         | 1953         | 1951                    | 1952         | 1953         |
| <b>Construction—</b>                 |                                      |              |              |                         |              |              |
| Housing.....                         | 821                                  | 850          | 981          | 17.9                    | 16.6         | 18.1         |
| Other building.....                  | 951                                  | 1,095        | 1,197        | 20.8                    | 21.4         | 22.1         |
| Engineering.....                     | 919                                  | 1,163        | 1,206        | 20.1                    | 22.7         | 22.2         |
| Marine.....                          | 44                                   | 49           | 48           | 1.0                     | 0.9          | 0.9          |
| <b>Totals, All Construction.....</b> | <b>2,735</b>                         | <b>3,157</b> | <b>3,432</b> | <b>59.8</b>             | <b>61.6</b>  | <b>63.3</b>  |
| Machinery and Equipment.....         | 1,842                                | 1,965        | 1,989        | 40.2                    | 38.4         | 36.7         |
| <b>Totals, Capital Expenditures.</b> | <b>4,577</b>                         | <b>5,122</b> | <b>5,421</b> | <b>100.0</b>            | <b>100.0</b> | <b>100.0</b> |

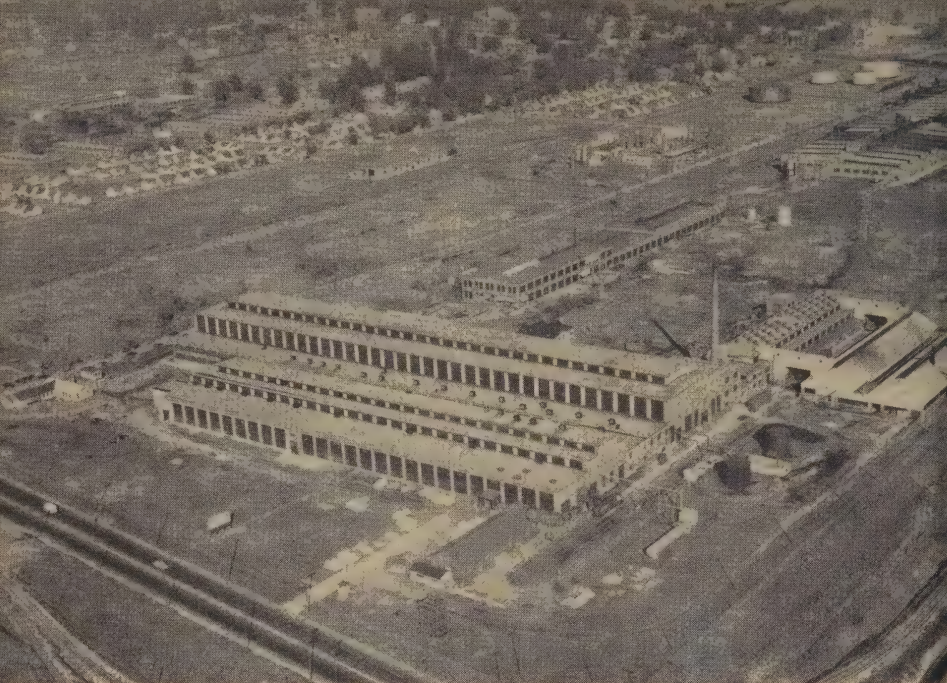
Some indication of the physical decline in house-building may be obtained from the following table on housing starts and completions. Housing starts in 1951 were at the lowest point since 1946 while completions reached their low point in 1952. The recovery in starts apparent in 1952 will likely be followed by an increase in completions in 1953.

Perhaps what has been happening in the investment field in recent years may be better illustrated by reference to some of the more important projects

*A low-cost housing project in Western Canada. Since 1945, government-sponsored plans have accounted for about one-third of the new houses constructed across the country.*







*Heavy capital investment in new structures, plant expansion and machinery and equipment has greatly increased Canada's basic industrial capacity in the post-war period. Shown here are the rolling, tube and rod mills of Noranda Copper and Brass Limited, Montreal East, which have recently been considerably enlarged.*

#### *Dwelling Units, including Conversions, Started and Completed, 1947-52*

| Item             | 1947 <sup>1</sup> | 1948 <sup>1</sup> | 1949 <sup>1</sup> | 1950   | 1951   | 1952   |
|------------------|-------------------|-------------------|-------------------|--------|--------|--------|
|                  | No.               | No.               | No.               | No.    | No.    | No.    |
| Starts.....      | 81,276            | 95,340            | 93,931            | 95,270 | 72,079 | 85,461 |
| Completions..... | 79,231            | 81,243            | 91,655            | 91,754 | 84,810 | 76,302 |

<sup>1</sup>Excluding Newfoundland.

completed or under way. One of the points of greatest interest is the oil development in Alberta. In addition to the investment required in the oil fields themselves, over \$200,000,000 has been spent on expanding petroleum-refining facilities across Canada. One \$60,000,000 oil pipe line has been built and another expected to cost \$80,000,000 is under way. Further large expenditures have been made for tankers to transport oil on the Great Lakes. In the base-metal field the most spectacular project has been the development of new nickel-copper deposits in far northern Manitoba, involving the moving of a whole townsite and mine workings more than 100 miles into the wilderness and the building of a railway to service the operations. In Quebec, a 360-mile railway to the new iron deposits near the Labrador border is being pushed towards completion. On the Pacific Coast, the most important development is the large aluminum project now under way, the first stage of which



alone will cost in the neighbourhood of \$200,000,000. These are but a few of the highlights in investment spending in recent years. Mention could be made of other new developments all across the country: the great increases in primary steel capacity being brought about in Ontario; the new petrochemical industry with its developments in Quebec, Ontario and Alberta; vast new hydro-electric projects in the central provinces and on the west coast; the building up of an aircraft industry; and the expansion of the pulp and paper industry, particularly in British Columbia.

In December 1952 a survey was made of the investment intentions of business, institutions, governments and house-builders for 1953. The results of this survey are summarized in the following table.

***Investment Intentions in 1953 as compared with Capital Expenditures in 1952***

| Sector                                      | Construction | Machinery and Equipment | Total      | Percentage of Total |
|---------------------------------------------|--------------|-------------------------|------------|---------------------|
|                                             | \$'000,000   | \$'000,000              | \$'000,000 |                     |
| Agriculture, fishing and forestry..... 1952 | 96           | 505                     | 601        | 11.7                |
| ..... 1953                                  | 95           | 490                     | 585        | 10.8                |
| Mining, quarrying and oil wells..... 1952   | 145          | 66                      | 211        | 4.1                 |
| ..... 1953                                  | 163          | 86                      | 249        | 4.6                 |
| Construction..... 1952                      | 6            | 65                      | 71         | 1.4                 |
| ..... 1953                                  | 7            | 41                      | 48         | 0.9                 |
| Totals, Extractive Industries..... 1952     | 247          | 636                     | 883        | 17.2                |
| ..... 1953                                  | 265          | 617                     | 882        | 16.3                |
| Consumer goods manufacturing..... 1952      | 53           | 166                     | 219        | 4.3                 |
| ..... 1953                                  | 50           | 148                     | 198        | 3.6                 |
| Other manufacturing..... 1952               | 290          | 433                     | 723        | 14.1                |
| ..... 1953                                  | 262          | 431                     | 693        | 12.8                |
| Utilities..... 1952                         | 668          | 429                     | 1,097      | 21.4                |
| ..... 1953                                  | 667          | 476                     | 1,143      | 21.1                |
| Service industries..... 1952                | 135          | 182                     | 317        | 6.2                 |
| ..... 1953                                  | 241          | 190                     | 431        | 8.0                 |
| Institutions..... 1952                      | 226          | 29                      | 255        | 5.0                 |
| ..... 1953                                  | 270          | 35                      | 305        | 5.6                 |
| Housing..... 1952                           | 850          | —                       | 850        | 16.6                |
| ..... 1953                                  | 981          | —                       | 981        | 18.1                |
| Government departments..... 1952            | 688          | 90                      | 778        | 15.2                |
| ..... 1953                                  | 696          | 92                      | 788        | 14.5                |
| Totals, All Sectors..... 1952               | 3,157        | 1,965                   | 5,122      | 100.0               |
| ..... 1953                                  | 3,432        | 1,989                   | 5,421      | 100.0               |

The industrial pattern in 1953 will show some modification of the trends apparent in the two previous years. The easing in the materials situation, the lifting of the Government's deferred depreciation regulations and the legislative encouragements to house-building have been conducive to increased investment planning by non-essential industries and house-builders. Some of the heavy manufacturing industries have completed their large-scale investment projects with the result that, during 1953, investment in this sector is expected to be somewhat lower. The iron and steel and the pulp and paper industries plan cut-backs from 1952 levels. At the same time, expanded investment programs are planned for consumer goods industries, as well as for petroleum, transportation equipment and non-ferrous metals industries. Increased investment in mining and in utilities is also indicated by the stated intentions of businessmen.



# Labour

**D**URING the past half-century, Canada has changed from an essentially rural and agrarian economy to one in which non-agricultural industry and urban areas are of major importance. This transition has had a profound effect on Canadian workers, both economically and socially. Increased productivity, brought about in part by tremendous technological advances, has reduced the proportion of the labour force required to provide necessities, thus setting free a larger proportion of workers for the production of other goods and services.

Accompanying the growth of manufacturing industries and the use of changed techniques in the production of an ever-widening variety of products, there has been a great variation in the types of jobs available and in the skills required. Subdivision of labour and specialization tend to make the worker of to-day more dependent upon the work of others to provide him with his needs and demands than was the case in the comparative self-sufficiency of rural life and skilled craftsmanship at the turn of the century.

Increasing industrialization and the rapid growth of urban centres have brought about the need for group organization and protective legislation. Government legislation protects the worker against the hazards of a more complex economic structure, while labour organizations, active in the interests of labour, now form an integral part not only of the community but of the nation as well.

## The Labour Force

The labour force of Canada, as measured by sample surveys conducted by the Dominion Bureau of Statistics, includes those people at work plus those currently available for work. 'Work' in this sense means types of effort for which remuneration is normally received. However, the labour force also includes those persons who did unpaid work which contributed to the running of a farm or a business operated by a relative. Thus a coal-miner or a shop-keeper is considered to be in the labour force but a housewife or a student is not. The labour force is not a fixed body of persons, but is a stream through which most individuals flow for a shorter or longer period. It is constantly changing, as new workers enter and old ones leave.

In June 1952, the Canadian labour force numbered 5,329,000 people, or almost 54 p.c. of the non-institutional civilian population, 14 years of age or over. Of the 4,581,000 people outside the labour force, 3,754,000 were women, 86 p.c. of whom were keeping house. Students numbered 703,000 and 645,000 persons were permanently unable or too old to work or were voluntarily idle.

About three out of four people in the labour force are male and almost one-half of those in the labour force are from 25 to 44 years of age; the average female worker is considerably younger than the average male worker. Occupationally, one worker out of six is in agriculture; geographically,





Coal-miners preparing to go underground at Nova Scotia liery.

almost two out of three live in Ontario or Quebec. The percentage of the labour force to the total population 14 years of age or over is lower in Newfoundland, the Maritime Provinces and British Columbia than in the rest of the country.

In non-agricultural industries, which employ 4,298,000 people of whom one-quarter are women, about 87 p.c. of the men and 92 p.c. of the women are paid employees. In agriculture, on the other hand, paid employees form a relatively small element—hardly more than one worker in seven even at harvest season.

### *Estimates of the Canadian Civilian Labour Force and its Main Components, June 1, 1931, and 1941-52*

(Thousands of persons 14 years of age or over)

| Year                | Persons with Jobs—                  |                    |                        |       | Persons Without<br>Jobs and<br>Seeking<br>Work | Total<br>Civilian<br>Labour<br>Force | Persons<br>Not in<br>Labour<br>Force | Civilian<br>Non-<br>Insti-<br>tutional<br>Popula-<br>tion <sup>2</sup> |
|---------------------|-------------------------------------|--------------------|------------------------|-------|------------------------------------------------|--------------------------------------|--------------------------------------|------------------------------------------------------------------------|
|                     | In Non-Agricul-<br>tural Industries |                    | In<br>Agri-<br>culture | Total |                                                |                                      |                                      |                                                                        |
|                     | Paid                                | Other <sup>1</sup> |                        |       |                                                |                                      |                                      |                                                                        |
| 1931..              | 2,006                               | 421                | 1,203                  | 3,630 | 475                                            | 4,105                                | 2,934                                | 7,039                                                                  |
| 1941..              | 2,538                               | 476                | 1,210                  | 4,224 | 193                                            | 4,417                                | 3,552                                | 7,969                                                                  |
| 1942..              | 2,770                               | 488                | 1,127                  | 4,385 | 134                                            | 4,519                                | 3,381                                | 7,900                                                                  |
| 1943..              | 2,906                               | 434                | 1,107                  | 4,447 | 75                                             | 4,522                                | 3,275                                | 7,797                                                                  |
| 1944..              | 2,950                               | 369                | 1,126                  | 4,445 | 62                                             | 4,507                                | 3,349                                | 7,856                                                                  |
| 1945..              | 2,914                               | 363                | 1,134                  | 4,411 | 72                                             | 4,483                                | 3,509                                | 7,992                                                                  |
| 1946..              | 2,957                               | 481                | 1,261                  | 4,699 | 125                                            | 4,824                                | 3,891                                | 8,715                                                                  |
| 1947..              | 3,112                               | 548                | 1,163                  | 4,823 | 91                                             | 4,914                                | 4,019                                | 8,933                                                                  |
| 1948..              | 3,201                               | 537                | 1,177                  | 4,915 | 81                                             | 4,996                                | 4,057                                | 9,053                                                                  |
| 1949..              | 3,312                               | 548                | 1,110                  | 4,970 | 101                                            | 5,071                                | 4,140                                | 9,211                                                                  |
| 1950 <sup>3</sup> . | 3,410                               | 562                | 1,061                  | 5,033 | 149                                            | 5,182                                | 4,413                                | 9,595                                                                  |
| 1951 <sup>3</sup> . | 3,640                               | 535                | 997                    | 5,172 | 83                                             | 5,255                                | 4,459                                | 9,714                                                                  |
| 1952 <sup>3</sup> . | 3,782                               | 516                | 924                    | 5,222 | 107                                            | 5,329                                | 4,581                                | 9,910                                                                  |

<sup>1</sup> Employers, 'own-account' and unpaid family workers.  
remote areas or Indians on reservations.

<sup>2</sup> Not including persons in  
<sup>3</sup> Includes Newfoundland.

# Industrial and Occupational Distribution of Persons with Jobs, by Sex, Week ended May 31, 1952

(Thousands of persons 14 years of age or over)

| Industry or Occupation                          | All Persons with Jobs |              |              | Paid Workers |              |              |
|-------------------------------------------------|-----------------------|--------------|--------------|--------------|--------------|--------------|
|                                                 | Male                  | Female       | Both Sexes   | Male         | Female       | Both Sexes   |
| <b>Industry—</b>                                |                       |              |              |              |              |              |
| Agriculture.....                                | 839                   | 85           | 924          | 99           | 1            | 105          |
| Forestry.....                                   | 76                    | 1            | 77           | 62           | 1            | 63           |
| Fishing, trapping.....                          | 41                    | 1            | 43           | 13           | 1            | 14           |
| Mining, quarrying <sup>2</sup> .....            | 95                    | 1            | 98           | 93           | 1            | 95           |
| Manufacturing.....                              | 1,084                 | 267          | 1,351        | 1,020        | 258          | 1,278        |
| Construction.....                               | 349                   | 1            | 356          | 282          | 1            | 289          |
| Transportation <sup>3</sup> .....               | 366                   | 52           | 418          | 332          | 51           | 383          |
| Public utilities.....                           | 54                    | 1            | 59           | 54           | 1            | 59           |
| Trade.....                                      | 527                   | 247          | 774          | 399          | 205          | 604          |
| Finance, insurance <sup>4</sup> .....           | 91                    | 68           | 159          | 80           | 68           | 148          |
| Service.....                                    | 531                   | 432          | 963          | 451          | 398          | 849          |
| <b>Totals.....</b>                              | <b>4,053</b>          | <b>1,169</b> | <b>5,222</b> | <b>2,885</b> | <b>1,002</b> | <b>3,887</b> |
| <b>Occupation—</b>                              |                       |              |              |              |              |              |
| Managerial.....                                 | 409                   | 48           | 457          | 158          | 17           | 175          |
| Professional.....                               | 222                   | 122          | 344          | 187          | 118          | 305          |
| Clerical.....                                   | 261                   | 330          | 591          | 261          | 324          | 585          |
| Transportation.....                             | 343                   | 1            | 346          | 323          | 1            | 326          |
| Communication.....                              | 41                    | 34           | 75           | 41           | 34           | 75           |
| Commercial.....                                 | 200                   | 147          | 347          | 193          | 127          | 320          |
| Financial.....                                  | 35                    | 1            | 36           | 31           | 1            | 32           |
| Service.....                                    | 214                   | 219          | 433          | 201          | 200          | 401          |
| Agricultural.....                               | 844                   | 85           | 929          | 104          | 1            | 110          |
| Fishing, logging and trapping.....              | 102                   | 1            | 103          | 63           | 1            | 64           |
| Mining.....                                     | 64                    | —            | 64           | 63           | —            | 63           |
| Manufacturing and mechanical <sup>5</sup> ..... | 735                   | 170          | 905          | 715          | 162          | 877          |
| Construction.....                               | 316                   | 1            | 317          | 281          | 1            | 282          |
| Labourers.....                                  | 267                   | 1            | 275          | 264          | 1            | 272          |

<sup>1</sup> Less than 10,000.

<sup>2</sup> Includes oil wells.

<sup>3</sup> Includes storage.

<sup>4</sup> Includes real estate.

<sup>5</sup> Includes stationary enginemen and occupations associated with electric-power production.

## Employment in 1952

The upward movement characterizing both employment and payrolls in the major non-agricultural industries in recent years continued during 1952, but on a lower scale than in either 1950 or 1951. To some extent, the slower rate of gain resulted directly and indirectly from industrial disputes that caused substantial losses in employment and man-working days. Another factor was a decline in activity in certain industries, mainly those manufacturing non-durable goods, particularly textiles, clothing and leather products.

Reflecting widespread and substantial increases in wage rates, and also some changes in industrial distribution, the index number of payrolls for the first nine months of 1952 rose to a new maximum, exceeding by over 12 p.c. the figure for the same months in 1951 when the gain over the preceding year had been greater, at 19 p.c. The advances in the average weekly wages and salaries were similar in the two years, standing at about 10 p.c.

There were widely distributed but moderate gains in employment in 1952 in most of the industries covered by the monthly surveys. The expansion in construction took place to a considerable extent on defence and industrial projects, involving in some cases unusually long hours of work and high earnings. As a result, the payroll index and the average weekly wages and salaries

in this group showed percentage increases exceeding those in other major industrial divisions. The reduction in the index of employment in forestry was partly due to declining export markets, but prolonged labour-management disputes in British Columbia in the summer of 1952 also contributed to the lower levels recorded in the first nine months of the year as compared with the same period in 1951.

### *Index Numbers of Employment and Payrolls, and Average Weekly Wages and Salaries, by Industrial Groups, 1951 and 1952*

NOTE.—The figures are averages for the first nine months of 1951 and 1952 and are exclusive of Newfoundland. (1939=100)

| Industry                                       | Index Numbers of— |              |               |              |              |               | Average Weekly Wages and Salaries |              |               |
|------------------------------------------------|-------------------|--------------|---------------|--------------|--------------|---------------|-----------------------------------|--------------|---------------|
|                                                | Employment        |              |               | Payrolls     |              |               |                                   |              |               |
|                                                | 1951              | 1952         | P.C. Increase | 1951         | 1952         | P.C. Increase | 1951                              | 1952         | P.C. Increase |
|                                                |                   |              |               |              |              |               | \$                                | \$           |               |
| Forestry (chiefly logging).....                | 207.9             | 192.5        | -7.4          | 557.8        | 609.6        | 9.3           | 46.79                             | 54.98        | 17.5          |
| Mining.....                                    | 116.6             | 123.7        | 6.1           | 238.7        | 277.2        | 16.1          | 58.70                             | 64.33        | 9.6           |
| Manufacturing.....                             | 189.5             | 189.7        | 0.1           | 419.2        | 462.9        | 10.4          | 50.36                             | 55.57        | 10.3          |
| Durable goods.....                             | 235.5             | 242.2        | 2.8           | 522.4        | 595.3        | 14.0          | 53.83                             | 59.69        | 10.9          |
| Non-durable goods.....                         | 159.6             | 155.8        | -2.4          | 343.8        | 367.7        | 7.0           | 47.03                             | 51.45        | 9.4           |
| Construction.....                              | 169.5             | 185.9        | 9.7           | 427.7        | 535.9        | 25.3          | 47.15                             | 54.12        | 14.8          |
| Transportation, storage and communication..... | 174.7             | 184.6        | 5.7           | 324.8        | 363.1        | 11.8          | 53.22                             | 56.26        | 5.7           |
| Public-utility operation.....                  | 186.3             | 193.4        | 3.8           | 347.4        | 402.4        | 15.8          | 55.02                             | 61.33        | 11.5          |
| Trade.....                                     | 172.4             | 175.0        | 1.5           | 333.1        | 367.7        | 10.4          | 42.23                             | 45.98        | 8.9           |
| Finance, insurance and real estate.....        | 167.7             | 179.1        | 6.8           | 264.7        | 301.7        | 14.0          | 45.85                             | 48.99        | 6.8           |
| Service.....                                   | 180.5             | 186.7        | 3.4           | 344.5        | 377.0        | 9.4           | 31.31                             | 33.72        | 7.7           |
| <b>Industrial Composite..</b>                  | <b>178.0</b>      | <b>182.1</b> | <b>2.3</b>    | <b>370.4</b> | <b>416.0</b> | <b>12.3</b>   | <b>48.80</b>                      | <b>53.63</b> | <b>9.9</b>    |

Examination of the provincial figures shows a generally upward movement in employment except in British Columbia, where the falling-off was largely due to the strike in the logging and lumbering industry. The greater-than-average gain in Alberta was due largely to developments in the oil and related industries.

### *Index Numbers of Employment, by Provinces, 1951 and 1952*

NOTE.—Figures are averages for the first nine months of 1951 and 1952.

| Province                  | 1951  | 1952  | P.C. Increase | Province                        | 1951         | 1952         | P.C. Increase |
|---------------------------|-------|-------|---------------|---------------------------------|--------------|--------------|---------------|
| Prince Edward Island..... | 174.5 | 190.7 | 9.3           | Saskatchewan.....               | 145.0        | 152.9        | 5.4           |
| Nova Scotia.....          | 146.6 | 153.1 | 4.4           | Alberta.....                    | 199.5        | 213.4        | 7.0           |
| New Brunswick.....        | 178.1 | 181.0 | 1.6           | British Columbia....            | 187.6        | 187.0        | -0.3          |
| Quebec.....               | 165.6 | 172.4 | 4.1           | <b>Provincial Composite....</b> | <b>178.0</b> | <b>182.1</b> | <b>2.3</b>    |
| Ontario.....              | 189.8 | 191.5 | 0.9           |                                 |              |              |               |
| Manitoba.....             | 171.5 | 174.6 | 1.8           |                                 |              |              |               |

### *Wage Rates, Hours of Labour and Working Conditions*

The trend of wage rates in Canada has been steadily upward since the beginning of World War II. To show this trend, index numbers of wage rates by industry are compiled in the Department of Labour and published in the



*Labour Gazette* and in the *Annual Report on Wage Rates and Hours of Labour in Canada*. These indexes, however, cannot be used to compare wage levels in one industry with those in another.

The basic statistics are average straight-time wage rates or average straight-time piece-work earnings and do not therefore include overtime or other premium payments. Information on wage rates by occupation and industry is collected by means of a survey of employers conducted as of Oct. 1 each year with a sample survey each April in order to determine the intervening trend.

The general increase in wage rates from 1939 to 1951 was 142 p.c. with an estimated additional rise of 2.2 p.c. between October 1951 and April 1952.

### Index Numbers of Wage Rates for Certain Main Groups of Industries, 1901-51

(Rates in 1939 = 100)

| Year    | Logging | Coal Mining | Metal Mining | Manufacturing | Construction | Water Transport | Steam Railways | Urban Transportation | Telephones | General Average <sup>1</sup> |
|---------|---------|-------------|--------------|---------------|--------------|-----------------|----------------|----------------------|------------|------------------------------|
| 1901... | 51.4    | 47.4        | 61.2         | ..            | 35.3         | 43.9            | 33.7           | 32.8                 | ..         | 38.1                         |
| 1905... | 57.0    | 49.5        | 58.7         | ..            | 42.8         | 44.7            | 36.5           | 37.7                 | ..         | 43.1                         |
| 1910... | 64.0    | 54.0        | 62.5         | ..            | 50.9         | 48.4            | 44.1           | 44.0                 | ..         | 49.9                         |
| 1915... | 61.1    | 58.7        | 66.2         | 50.1          | 59.4         | 54.0            | 49.8           | 50.2                 | ..         | 53.2                         |
| 1920... | 142.5   | 113.3       | 102.9        | 102.4         | 106.0        | 105.2           | 108.2          | 99.7                 | 92.2       | 107.0                        |
| 1925... | 95.2    | 96.1        | 93.3         | 92.3          | 99.8         | 90.4            | 91.2           | 96.4                 | 89.1       | 93.8                         |
| 1930... | 97.5    | 97.1        | 93.9         | 95.5          | 119.1        | 97.2            | 100.0          | 102.3                | 94.7       | 99.9                         |
| 1935... | 73.1    | 95.0        | 92.6         | 87.0          | 93.6         | 81.1            | 90.1           | 94.3                 | 93.0       | 88.4                         |
| 1940... | 104.9   | 102.1       | 102.8        | 104.3         | 104.3        | 105.2           | 100.0          | 103.9                | 101.3      | 103.9                        |
| 1945... | 153.3   | 146.2       | 128.2        | 146.5         | 131.1        | 144.6           | 125.5          | 126.6                | 125.6      | 141.8                        |
| 1946... | 167.4   | 146.7       | 135.7        | 161.5         | 143.9        | 162.3           | 142.3          | 139.5                | 125.2      | 155.2                        |
| 1947... | 195.1   | 166.7       | 157.7        | 183.3         | 155.0        | 183.8           | 142.3          | 162.3                | 132.2      | 173.7                        |
| 1948... | 218.8   | 192.9       | 173.1        | 205.9         | 176.3        | 213.5           | 170.2          | 175.0                | 140.4      | 195.8                        |
| 1949... | 216.2   | 196.1       | 180.8        | 217.9         | 184.2        | 213.8           | 170.2          | 179.0                | 151.5      | 204.6                        |
| 1950... | 213.9   | 200.7       | 192.0        | 230.7         | 194.0        | 236.3           | 179.2          | 192.1                | 158.9      | 215.9                        |
| 1951... | 246.2   | 217.9       | 222.5        | 261.6         | 217.2        | 256.0           | 207.4          | 215.2                | 175.8      | 243.6                        |

<sup>1</sup> Includes laundries.

Track laying is a husky man's job, but modern techniques and machinery are reducing the physical toil and speeding up the work. This power wrench tightens or loosens bolts quickly and efficiently.



During the twelve months ended Oct. 1, 1951, the normal work week of plant workers in Canadian manufacturing decreased about three-quarters of an hour to a national average of 43.6 hours. At that date, 70 p.c. of the plant workers in manufacturing were on a five-day week, as compared with 65 p.c. in October 1950; in about half the establishments with a five-day week, the number of hours normally worked was 40. Only 23 p.c. of plant employees in manufacturing were working in establishments where the weekly schedule was more than 45 hours.

The percentages of non-office workers on a five-day week in other major Canadian industrial groups were as follows: mining, 40.3; transportation, storage and communication (exclusive of steam railways), 45.5; public utilities, 71.5; trade, 33.1; and services, 20.3.



*Workmen's compensation laws in certain provinces provide for the rehabilitation of injured workmen. Here patients in an Ontario convalescent centre are assisted to regain their occupational skill before returning to their jobs.*



*Arrival of a stretch-er case at the Malton, Ont., Convalescent Centre.*



Apprentice silver-smiths at work.



For office workers, the weekly work schedule most common was 37.5 hours; only 17.0 p.c. had a normal weekly schedule of more than 40 hours. Approximately two-thirds of office workers in the six major industrial groups were on a five-day week in 1951.

Practically all industrial workers in Canada are paid for vacations of at least one week. By October 1951, almost 90 p.c. of the plant workers in manufacturing and more than 98 p.c. of the office employees in Canadian manufacturing were working in establishments where they could become eligible for an annual paid vacation of two weeks provided they had fulfilled the necessary service requirements. For plant employees, this minimum employment requirement was most commonly five years, although an increasingly high proportion were working in establishments which granted a two-week paid vacation after shorter periods of service. Office workers usually received two weeks after only a year of service.

Close to half the plant workers were in establishments providing a three-week paid vacation, usually after 15, 20 or 25 years of service. About 55 p.c. of the office workers covered in the survey could become eligible for a three-week vacation after fulfilling similar minimum service requirements.

## ***Labour Legislation***

Most of the laws for the protection of labour in Canada are provincial. Within provincial authority are those that regulate and provide for inspection of mines, factories, shops and other workplaces, establish a minimum age for employment, set limits on daily and weekly hours of work, fix minimum rates of wages, provide for annual holidays with pay and ensure the payment of compensation for injuries received at work.

All provinces except Newfoundland and Prince Edward Island have factory Acts, and all except Prince Edward Island have mines Acts. In all provinces, a minimum age is fixed for most types of employment. Five



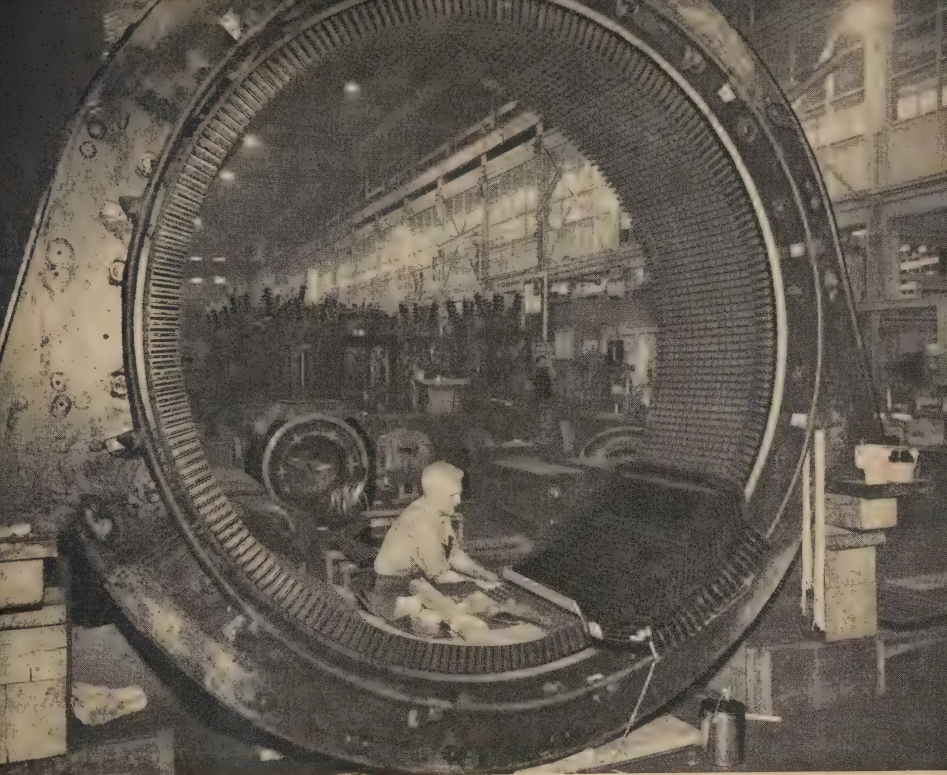
provinces have laws setting working hours of eight per day and 48 or less per week. All provinces except Prince Edward Island have minimum wage legislation under which minimum rates are set for most classes of workers except farm labourers and domestic servants. The Nova Scotia Act does not apply to men, and in Ontario no orders respecting men are in effect. In seven provinces there is legislation for applying wages and hours' conditions, reached by agreement in a representative section of an industry, to all employers and workers in the industry and area. In six provinces most employers are required to grant their workers an annual paid vacation of one week or more. Workmen's compensation laws in all ten provinces provide compensation for industrial accidents and diseases through a system of state insurance under which employers are collectively liable for compensation and medical costs. Apprenticeship laws in all provinces provide for the training of young people in designated skilled trades through a combination of on-the-job training and class instruction for a period usually of four years. During his training an apprentice receives a proportion of journeymen's rates of pay. Grants from the Federal Government have enabled the provinces to expand the program since the War.

Two new types of law recently enacted are equal pay laws in Ontario and Saskatchewan and a law in Ontario prohibiting discrimination in employment on the grounds of race, creed, colour or national origin.

To encourage collective bargaining and promote harmonious relations between employers and employees in undertakings within provincial jurisdiction, all provinces have labour-relations Acts. Under these Acts, an employer is required to bargain for the conclusion of a collective agreement with a trade union representing his employees. Conciliation services are available if negotiations break down. Strikes and lockouts are prohibited until the procedures set out in the Act have been carried out.

Under Federal laws, an unemployment insurance plan covers most workers throughout Canada and, associated with unemployment insurance, a nation-wide chain of employment offices is available to all workers and employers (*see* p. 238). Fair wages legislation requires contractors for federal public works and government equipment and supplies to limit daily and weekly working hours to eight and 44, and to pay "fair and reasonable" wages, generally accepted as current in the district. From Jan. 1, 1953, all government contracts will contain a clause prohibiting discrimination by the contractor in hiring and employment on grounds of race, national origin, colour or religion. The Canada Shipping Act sets standards for the welfare and safety of seamen. The Vocational Training Co-ordination Act, 1942, authorizes the Minister of Labour to co-operate with the provinces in carrying on various types of vocational training. The Industrial Relations and Disputes Investigation Act governs labour relations in undertakings within federal jurisdiction.

**Federal Legislation re Collective Bargaining and Conciliation.**—The Industrial Relations and Disputes Investigation Act, which came into effect on Sept. 1, 1948, replacing earlier labour-relations legislation, applies to industries within federal jurisdiction, i.e., navigation, shipping, interprovincial railways, canals, telegraphs, steamship lines and ferries, both interprovincial and international aerodromes and air transportation, radio broadcasting stations, and works declared to be for the general advantage of Canada. The



*An employee with many years of experience applies his skill to winding the stator of a waterwheel generator.*

Act provides that provincial authorities may enact similar legislation for application to employees within provincial jurisdiction and make arrangements for the administration of such legislation by the federal authorities.

The Minister of Labour and the Canada Labour Relations Board, composed of four representatives from organized labour and four from management, a chairman and a vice-chairman, jointly administer the provisions of the Act. The legislation provides for the right of free association of employees and employers, for the safeguarding of that right by prohibiting unfair labour practices, for compulsory collective bargaining between trade unions and employers upon notice following certification or upon notice to negotiate the renewal of an agreement. Where direct negotiation fails to produce an agreement, conciliation services may be provided by officers and boards. Strikes and lockouts and the taking of strike votes are prohibited until the legislative procedures of negotiation and conciliation, laid down in the Act, have either been satisfied or the Minister has refused to appoint a Conciliation Board. Where a Board has been appointed, a strike or lockout may take place seven days after the report of the Board has been given to the Minister of Labour. Where the Minister neglects to appoint a Board, a strike or lockout may take place after 15 days or earlier if the Minister gives notice of refusal to appoint a Board.

## ***Labour Organization***

Almost one-third of Canada's non-agricultural wage-earners are union members. Geographically, the distribution of this group follows closely that of the population generally. Thus, 61 p.c. of the total union membership is found in Ontario and Quebec, 14 p.c. in British Columbia, 13 p.c. in the Prairie Provinces, and 10 p.c. in the Maritimes. Each urban community with a population of 30,000 or more contains at least 2,500 union members. These communities account for three-quarters of the membership.

The majority of union members belong to unions affiliated with one of the larger central labour congresses. At Jan. 1, 1952, approximately 75 p.c. of the membership was included in unions belonging to the Trades and Labour Congress of Canada (523,000 members) and the Canadian Congress of Labour (331,000 members). The greater number of unions affiliated with these two congresses are international organizations with headquarters in the United States. A further 89,000 workers belong to the Canadian and Catholic Confederation of Labour. About 12,000 are in unions affiliated only with United States labour congresses. The remainder of the 1,146,100 unionists belong to smaller labour groups or independent unions. One large group among the independent unions is the International Railway Brotherhoods, comprising 41,000 members.

The major function carried on by the unions is collective bargaining. To-day, more than 5,000 agreements are in effect throughout Canada. The agreements cover such matters as wage rates, hours of work, union security, vacations, and statutory holidays. In the major industrial groups, the percentages of workers under agreement during 1950 were as follows: mining 72.1 p.c.; manufacturing 49.1 p.c.; construction 43.9 p.c.; electricity and gas 51.3 p.c.; transportation and communications 77.3 p.c.; trades 7.0 p.c.; and services 10.8 p.c. There is little organization as yet among agricultural workers and, as a consequence, practically no collective bargaining takes place.

## ***Unemployment Insurance***

The Unemployment Insurance Act 1940, which came into operation in July 1941, provides for a contributory scheme of unemployment insurance and a nation-wide free employment service. The Act is administered by an Unemployment Insurance Commission, consisting of a Chief Commissioner and two Commissioners—one appointed after consultation with organized labour and one after consultation with employers. Regional and local officers strategically located across the country handle applications for employment and claims for unemployment insurance benefit.

All persons employed under a contract of service are insured unless specifically excepted. Exceptions include such employments as agriculture, fishing, domestic service, school-teaching, and those employed on other than an hourly, daily, piece or mileage basis with annual earnings exceeding \$4,800. Persons employed on an hourly, daily, piece or mileage basis are insured regardless of their earnings level. Employers and their insured workers contribute equally, the contributions being based on the wages or salaries earned. The Federal Government adds one-fifth of the total employer-employee contributions and pays administration costs.



## Rates of Contribution and Benefit under the Unemployment Insurance Act

(Effective July 14, 1952)

| Range of Earnings        | Weekly Contributions |                         | Rates of Benefit              |        |                            |        |
|--------------------------|----------------------|-------------------------|-------------------------------|--------|----------------------------|--------|
|                          | Em-<br>ployer        | Em-<br>ployed<br>Person | Person Without<br>a Dependant |        | Person With a<br>Dependant |        |
|                          |                      |                         | Daily                         | Weekly | Daily                      | Weekly |
| While Earning in a Week— | cts.                 | cts.                    | \$                            | \$     | \$                         | \$     |
| Less than \$ 9.00.....   | 18                   | 18                      | 0.70                          | 4.20   | 0.80                       | 4.80   |
| \$ 9.00 to \$14.99.....  | 24                   | 24                      | 1.00                          | 6.00   | 1.25                       | 7.50   |
| \$15.00 to \$20.99.....  | 30                   | 30                      | 1.45                          | 8.70   | 2.00                       | 12.00  |
| \$21.00 to \$26.99.....  | 36                   | 36                      | 1.80                          | 10.80  | 2.50                       | 15.00  |
| \$27.00 to \$33.99.....  | 42                   | 42                      | 2.15                          | 12.90  | 3.00                       | 18.00  |
| \$34.00 to \$47.99.....  | 48                   | 48                      | 2.50                          | 15.00  | 3.50                       | 21.00  |
| \$48.00 or more.....     | 54                   | 54                      | 2.85                          | 17.10  | 4.00                       | 24.00  |

During the calendar year 1951 there were 1,141,555 initial and renewal claims filed, 828,332 claimants were considered entitled to benefit on initial and on renewal claims, and benefit payments totalled \$72,769,192. Comparable figures for 1950 were 1,057,979 claims, 832,767 entitlements to benefit, and payments of \$94,500,207.

During the first six months of 1952, a total of 760,580 initial and renewal claims were filed in Local Offices across Canada. Claimants considered entitled to benefit on initial and on renewal claims numbered 568,465 while benefit payments amounted to \$72,883,220.

Tea reaches Canada in bulk and is packaged in Canadian plants for the retail market.



**Persons Insured under the Unemployment Insurance Act, by Industrial Group, Sex and Province, as at Apr. 1, 1951**

| Industrial Group                           | Males            | Females        | Province           | Males            | Females        |
|--------------------------------------------|------------------|----------------|--------------------|------------------|----------------|
| Agriculture.....                           | 1,690            | 490            | Newfoundland.....  | 40,770           | 5,960          |
| Forestry and logging...                    | 105,420          | 2,360          | P. E. Island.....  | 5,820            | 2,100          |
| Fishing, hunting and trapping.....         | 320              | 100            | Nova Scotia.....   | 83,850           | 19,150         |
| Mining, quarrying and oil wells.....       | 90,870           | 2,160          | New Brunswick....  | 73,630           | 17,180         |
| Manufacturing.....                         | 880,400          | 280,680        | Quebec.....        | 641,080          | 226,950        |
| Construction.....                          | 167,700          | 4,680          | Ontario.....       | 902,110          | 338,230        |
| Transportation, storage and communication. | 276,310          | 44,520         | Manitoba.....      | 127,640          | 42,520         |
| Public-utility operation                   | 34,140           | 4,070          | Saskatchewan.....  | 50,270           | 18,690         |
| Trade.....                                 | 298,840          | 188,420        | Alberta.....       | 104,520          | 30,730         |
| Finance, insurance and real estate.....    | 43,870           | 61,210         | British Columbia.. | 211,150          | 65,500         |
| Service.....                               | 187,600          | 138,220        |                    |                  |                |
| Unspecified.....                           | 5,440            | 1,600          |                    |                  |                |
| Unemployed.....                            | 148,240          | 38,500         |                    |                  |                |
| <b>Totals.....</b>                         | <b>2,240,840</b> | <b>767,010</b> | <b>Totals.....</b> | <b>2,240,840</b> | <b>767,010</b> |

Provision was made for the payment of supplementary benefits during the period Feb. 28 to Apr. 15, 1950, and in subsequent years during the period January to March, to certain classes of contributors whose contributions would ordinarily be insufficient to establish benefit rights. Both employee and employer contributions were increased by one cent a day to provide these payments at rates equal to approximately 80 p.c. of the regular benefit rates. During the period for which supplementary benefit was payable in 1951, 75,219 persons were paid \$3,922,395.

**The National Employment Service.**—The Unemployment Insurance Commission also operates the National Employment Service rendering service to all employers of Canada and to all workers regardless of their insurance status. Unemployment insurance benefit is paid to eligible insured persons when it is certified that the Employment Service is unable to refer them to suitable work. The employment offices of the Commission, more than 200 in number, are linked in a national chain through a system that enables an employer to draw workers from distant areas when applicants are not available in his own locality, and which permits workers to seek employment in any part of Canada when there are no job vacancies near at hand.

Job-finding facilities are provided for persons in technical and managerial occupations and for applicants whose earning capacities have been impaired by physical or other handicaps. Facilities also exist for vocational guidance and counselling of young workers and other applicants entering the employment market for the first time. This activity is carried out in co-operation with school and educational authorities. In co-operation with the Department of Labour, the Employment Service has assisted in the establishment in employment in Canada of displaced persons and other immigrants, particularly from European countries.

In 1951 a total of 926,149 vacancies were filled by the Service for Canadian employers. Of these 735,248 were jobs for regular employees and 155,492 were casual placements: the number of persons transferred to jobs in other areas was 35,409.

## **Vocational Training**

The Training Branch of the Department of Labour is responsible for the administration of the Vocational Training Co-ordination Act, 1942, which provides financial assistance to the provinces for various types of training agreed upon between the Federal Government and the provincial governments concerned.

Training programs and activities include apprenticeship training, the training of supervisors and foremen, trade training for unemployed persons who require such training to fit them for suitable employment, special programs for handicapped persons, and both general and specialized courses under the Youth Training Program for rural young people in agriculture, homecraft and handicrafts. Financial assistance is also given to nurses-in-training and to university students in the form of grants or loans.

The cost of classes specially organized for the training of workers in defence industries is shared on the basis of 75 p.c. from the Federal Government and 25 p.c. from the province in which the classes are conducted. The full cost of organizing and operating trade-training programs for members of the Armed Forces and special classes for the rehabilitation of veterans is borne by the Federal Government.

The Federal Government is assisting in the organization and operation of vocational technical schools below university grade in each province for a ten-year period that started in 1945. The \$20,000,000 provided for this purpose is allocated according to the number of persons in each province in the age group 15 to 19 years. An additional \$10,000,000 was allotted to be used for capital expenditures for buildings and equipment before Mar. 31, 1952. Under the terms of agreement, the amount paid to a province must be matched from the provincial treasury. The total budget of the Training Branch for the year ended Mar. 31, 1953, is \$5,481,000.

## **Government Annuities**

The Canadian Government Annuities Act was passed in 1908 to authorize the issue of Government annuities, the purpose being to encourage and aid Canadians to make provision for old age. Any resident of Canada may purchase a Canadian Government annuity up to \$1,200, payable for life only, or for life with a guarantee period of 5, 10, 15 or 20 years, or for the lives of joint annuitants with continuation to the survivor. Immediate annuities may be purchased in a lump sum and are payable immediately. Deferred annuities, usually bought by employed persons, are purchased by payment of periodic premiums or a single premium, and are payable on retirement.

Annuities may be purchased under individual contracts or by members of groups under group contracts. A group contract is generally an agreement with an employer to implement a retirement plan approved by the Minister of Labour, the purchase money being, as a rule, derived jointly from the employer contributions and deductions from wages.

On Mar. 31, 1952, annuity income of \$26,341,603 was payable under 58,057 contracts. The number of deferred annuities being purchased by individuals privately was 99,887. The number of group contracts was 915 covering 131,749 registered employees. The balance at credit of the Annuities Fund was \$675,931,703.





# Transportation Communications

**E**XTENSIVE and efficient transportation and communication facilities are vitally necessary to Canada, perhaps more so than to most other countries. Canada extends more than 4,000 miles from east to west and its main topographic barriers run north and south, tending to separate one section of the country from another. The relatively small population of 14,000,000 is mainly concentrated in a narrow uneven strip along the southern border but, as Canada's vast resources come under development, the movement is gradually northward. Distance to markets is always great, whether goods are destined for domestic consumption or for export. The task of keeping this vast area—3,845,774 sq. miles—with its scattered population, closely integrated by rail, road, water and air transportation facilities and by radio, telegraph, telephone and post office communication facilities is fundamentally important to Canada's economic development and to the maintenance of national unity and identity.

## • Transportation

The range of requirements for transportation services is so wide that no single medium can meet the demands of industry and the travelling public. The railways have served and will continue to serve as the principal facility of movement because only they have the capacity to supply cheap all-weather transportation in large volume over continental distances. But they are being faced to an increasing extent with selective competition from air, water and other land transport enterprises each of which is specialized by reason of advantages derived from its particular technique of operation.

The air lines, for example, are specialized in speed of movement which gives them a definite advantage in the transport of passenger and mail traffic. The air lines, too, are taking over the opening up of new areas for development, a job formerly carried on by railway and waterway facilities. But speed, lower capital outlays in instituting service and ability to reach otherwise inaccessible areas have been instrumental in establishing the air lines in this field. To-day there are many isolated mining properties that have been prospected, proven, developed and maintained by air transport.

Water carriers are specialized in low-cost bulk movement of goods in which speed of service is not a critical factor. Most of the movement in this field is over the Great Lakes-St. Lawrence waterways. About 50 p.c. of the lake tonnage is engaged in carrying grain and the balance carries ore, coal, pulpwood, limestone and general cargo. Also a fleet of specialized tankers now carries crude petroleum from the Head of the Lakes to the refineries at Sarnia. The oil pipe line itself, a relatively new development in Canada, can now be considered as a means of transportation that has a definite advantage over other methods for the movement of petroleum and petroleum products where a very large volume is assured over a sufficient number of years to amortize the initial costs of construction.



*Iron ore en route by rail from the mines at Steep Rock to the ore dock at Port Arthur, Ont., from which point it will be shipped by lake freighter to the steel mills of eastern Ontario.*

The roads have, of course, since the earliest days, played an unparalleled part in local passenger and freight movement. Their service has gradually extended until now they form great arteries for both short- and long-distance commercial and passenger traffic. The relatively low cost of operation of commercial road vehicles makes them particularly suitable for short-haul traffic moving in comparatively small volume.

## ***Railways***

There are two great railway systems in Canada, the Canadian National Railways, a government-owned system formed from the consolidation of several private and government lines in 1923, and the Canadian Pacific, a joint-stock corporation which began transcontinental operations in 1885. Each has a transcontinental line and a network of branch lines connecting the principal urban and rural centres of Canada. Each company constitutes a tremendous organization, serving the public in many fields of transportation and communication. The C.N.R. is Canada's largest public utility operating, in addition to its rail network and the multifarious associated facilities, a fleet of coastal and ocean-going steamships, a nation-wide telegraph service providing efficient communication between all principal points of Canada with connections to all parts of the world, express facilities in Canada and abroad, a chain of hotels, a scheduled trans-Canada air service and a transatlantic air service. The C.P.R. in addition to its far-flung railway operations, also has a fleet of inland, coastal and ocean-going vessels, a north-south air line system which is one of the world's greatest air freight carriers, a trans-pacific air-line service to the Orient and the Antipodes, a chain of year-round and resort hotels, a cross-Canada telegraph network, a world-wide express service, and a truck and bus transport service.

These two transportation systems co-operate, under government supervision, in avoiding unnecessary duplication of railway service. They have



long-standing agreements for the joint use of certain terminals, joint running rights, joint switching and other types of operation, use of each other's lines in cases of necessity, as well as joint ownership of property. The Board of Transport Commissioners controls freight and passenger rates as well as other matters relating to the construction, operation and safety of railways.

The combined length of line operated by these two companies, together with that owned by a number of smaller companies, was 58,150 miles in 1951. Gross operating revenues of all railways amounted to \$1,088,583,789 and operating expenses were \$977,577,062 compared with \$958,985,751 and \$833,726,562 in 1950. The 64,300,417,559 ton-miles of freight carried in 1951 was an increase of almost 8,763,000,000 ton-miles over 1950. Passengers carried numbered 30,995,604 compared with 31,139,092 in 1950 and employees averaged 204,025 as compared with 190,385.

Although actual track mileage has increased very little since the 1920's, great strides have been made in efficiency and speed of service. Since 1928 the mileage obtained per serviceable freight-car day increased from 33 to 45 and the daily mileage of serviceable freight locomotives rose from 107 to 152. The average carload increased from 25 to 30 tons, while the average freight train increased from 1,409 to 1,749 tons. Average freight train speed rose from 13 to 16 miles per hour and gross ton-miles per train hour increased from 18,500 to 28,100. Thus, the railways now furnish 58 p.c. more freight transportation with 12 p.c. fewer locomotives and 12.4 p.c. fewer freight cars and, in terms of quality, the average speed has been raised by 23 p.c. This improvement was accompanied by a significant decline in fuel consumption and the use of relatively less manpower. The most important recent development in motive power was the introduction of the diesel locomotive. The total number in service at the end of 1951 was 574.

## ***Urban Transport Services***

Widespread changes in urban transport systems have been taking place in recent years. Electric street railways have been replaced or supplemented in

*Intersection at  
Robson and Gran-  
ville Streets, Van-  
couver, B.C.*





*Freedom to drive to the curb or pass standing traffic makes electric trolley-buses preferable in congested traffic areas, and their almost total silence of operation and speedy pick-up makes them acceptable in residential areas.*

many Canadian cities by motor-buses and trolley-buses, and a large number of inter-urban electric lines have been abandoned. In most cases urban and inter-urban transportation systems are owned and operated by the municipalities.

In 1951, urban transit systems carried 1,428,121,000 passengers compared with 1,457,202,000 in 1950. Inter-urban services carried 100,927,879 passengers, 1,935,199 fewer than in the previous year. There has been a definite downward trend in traffic on transit facilities since 1948. One contributing factor is the great increase in the number of new motor-vehicles available in Canada. A large proportion of the 2,900,000 private passenger vehicles in use, including motor-cars, motorcycles and bicycles, is competitive with the transit systems. The recent rapid development of suburban areas has had the effect of encouraging the purchase of private cars as well as increasing the operating costs of transit company service. At the same time, the advance in fares made necessary mainly because of this suburban expansion has discouraged to some extent the previously profitable short-haul city traffic. General fare advances were responsible for the increase in revenue from \$152,029,085 in 1950 to \$158,805,912 in 1951, since patronage dropped 2 p.c. in the year. Though the industry generally showed little profit in 1951, considerable amounts continued to be spent on modernization and improvements.

### **Roads and Highways**

Canada, at the end of 1950, had 166,899 miles of surfaced road and 400,256 miles of non-surfaced road. Of the surfaced road, 142,022 miles were gravel, 22,775 miles were bituminous-surfaced and 2,045 miles concrete.



All roads, except those in the Territories, the National Parks and Indian Reservations, which are the responsibility of the Federal Government, are under the jurisdiction of provincial and municipal authorities. Of the almost \$278,000,000 spent on new construction and maintenance of roads, bridges, ferries, etc., in 1950, \$243,000,000 was supplied by the provincial governments and the remainder by the federal and municipal governments. To appreciate fully the extent of usage of public roads and the high cost of maintenance, it must be realized that motor-vehicle registrations have more than doubled in the past 15 years, rising from 1,240,124 in 1936 to 2,872,420 in 1951. In addition to domestic traffic, Canadian highways carry millions of foreign tourist cars annually, more than 7,277,000 entries having been recorded in 1951. Again, apart from wear and tear by vehicles, the natural climatic conditions are severe and play havoc with the roadways in the form of snow, frost, floods, etc.

The construction of a national coast-to-coast highway was sanctioned in December 1949, each participating province undertaking to construct and maintain that portion of the highway, other than on federal lands, within its borders. The general administration and co-ordination of the program is the responsibility of the Federal Government, which also shares with each province the cost of new construction to a maximum of 50 p.c. as well as part of the cost of existing highways taken into the plan.

All the provinces, except Quebec, had signed agreements with the Federal Government by the spring of 1952. The mileage of the route selected by the participating provinces totals 4,580 miles. By the end of March 1952, 4,258 miles were considered passable for vehicular traffic, but only 1,986 miles were paved.

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*Sections of the road system which will eventually be linked together to form the nation-wide Trans-Canada Highway are gradually being completed. However, major feats of engineering still face the road builders—blasting 150-foot cliffs along the Fraser River, tunnelling through British Columbia's mountains and bulldozing through timber and rock barriers in northern Ontario.*





## Motor-Vehicles

There were more motor-vehicles registered in Canada in 1951 than ever before. Of the 2,872,420 registrations—compared with 2,600,511 in 1950—2,097,594 were passenger cars and 774,826 commercial vehicles, including 688,784 trucks, 8,659 buses and 77,383 other vehicles. Registrations in the different provinces were as follows: Newfoundland, 20,058; Prince Edward Island, 16,896; Nova Scotia, 105,262; New Brunswick, 83,023; Quebec, 500,729; Ontario, 1,205,098; Manitoba, 171,265; Saskatchewan, 215,450; Alberta, 259,841; British Columbia, 291,417; and the Yukon and Northwest Territories, 3,381.

Provincial revenues from motor-vehicle registrations and licences reached a high of \$73,707,694 in 1951, and provincial gasoline tax revenues amounted to \$178,505,307. Taxable gasoline sold, most of which was consumed by motor-vehicles, amounted to 1,528,905,858 gal. in 1951.

The apparent supply of new passenger vehicles in 1951 amounted to 282,920 cars, 58,221 less than in 1950. The 1951 figure includes 243,155 cars made for sale in Canada plus 42,631 imports less 2,866 re-exports of imported cars. In that year, 275,686 passenger cars valued at \$683,182,846 were sold, as well as 109,962 trucks and buses valued at \$266,976,665. Only 33 p.c. of the number and 20 p.c. of the value of these vehicles were financed by finance companies. The average financed value was \$1,514.

**Motor-Carriers.**—The movement of freight and passengers by motor-vehicle has assumed great importance in the national transportation picture during the past quarter-century. Since the end of World War II, particularly, motor-vehicle traffic has made giant strides forward with the improvement in equipment and the extension of hard-surfaced highways.

Motor-carrier statistics do not represent a complete coverage of the industry, which is made up predominantly of small businesses with hundreds of licensees, each operating one or two trucks. Their bookkeeping is often sketchy and, at the same time, amalgamations and retirements are numerous, making a census difficult. In 1949, 3,493 carriers reported and, of these, 1,830 were small operators with revenues under \$8,000 for the year, most of them driver-owner operated. Eight hundred and forty carriers had revenues of between \$8,000 and \$19,999 and 823 had revenues of \$20,000 or over.

### Statistics of Motor-Carriers, 1946-49

| Item                                                 | 1946        | 1947        | 1948        | 1949                     |
|------------------------------------------------------|-------------|-------------|-------------|--------------------------|
| Investment in land, buildings, and equipment..... \$ | 72,725,752  | 91,278,837  | 100,116,005 | 119,207,606              |
| Revenue..... \$                                      | 102,241,162 | 118,139,496 | 132,579,445 | 152,841,541              |
| Equipment—                                           |             |             |             |                          |
| Trucks..... No.                                      | 6,652       | 7,183       | 7,858       | 7,980                    |
| Tractors, semi-trailer..... “                        | 2,387       | 2,657       | 2,867       | 3,875                    |
| Trailers..... “                                      | 1,368       | 1,791       | 1,694       | 2,314                    |
| Buses..... “                                         | 3,824       | 4,125       | 4,090       | 4,612                    |
| Passengers carried..... “                            | 261,041,676 | 281,651,437 | 295,671,927 | 376,187,096 <sup>1</sup> |
| Freight, inter-city and rural.... ton                | 11,944,384  | 13,071,660  | 13,843,387  | 14,021,489               |

<sup>1</sup> Increase due largely to the inclusion of two companies formerly reported as electric railways.

Freighters in the lower St. Lawrence, heading for the open sea. The Great Lakes-St. Lawrence system is the busiest waterway in the world.



## Shipping

Shipping on the waterways of Canada, including canals, inland lakes and rivers, is open to all countries of the world on equal terms except in the case of the coasting trade.

During 1951, customs officials reported 118,875 vessel arrivals in foreign and coasting service as compared with 115,485 in 1950 and 112,577 in 1949. It was, relatively, the busiest year since 1940 when a war-inspired peak of 124,453 arrivals was recorded. Registered net tonnage of vessels arriving amounted to 108,311,140 tons, the heaviest on record; the tonnages arriving at the five major ports were: Vancouver, 17,752,313 tons; Montreal, 8,251,462 tons; Victoria, 7,869,598 tons; Halifax, 5,040,478 tons; and Quebec, 4,051,591 tons. The total tonnage of all cargoes loaded and unloaded in foreign trade at all Canadian ports amounted to 65,549,193 tons of which 33,133,080 tons or 50.5 p.c. was carried by vessels of Canadian registry.

As in former years, the bulk of foreign trade was with the United States which accounted for 40,616,881 tons, or 62 p.c. of the total. Canadian vessels carried three-quarters of this water-borne commerce. In trade with other countries, however, Canadian shipping fared less well, carrying only 2,367,726 tons of a total of 24,932,312. Most of this freight was carried by vessels of the United Kingdom, United States, Panama, Norway and Sweden.

Commodities imported amounted to 38,269,394 tons, an advance of 3.5 p.c. over the 1950 total. This increase, mainly due to larger quantities of bauxite, petroleum and products, iron ore, limestone and general merchandise, was distributed among the three geographical regions as follows: Atlantic was down 9.4 p.c., Great Lakes was up 11.4 p.c., and Pacific up 4.8 p.c.

Exports rose to 27,279,799 tons, an increase of 6,051,869 tons or 28.5 p.c. over the 1950 total of 21,227,930 tons. Commodities which were exported in larger quantities, with the 1950 totals in parentheses, include: wheat, 6,620,022 tons (4,253,260); oats, 668,562 tons (158,380); barley, 1,002,246 tons (334,235);

iron ore, 3,382,146 tons (2,362,584); pulpwood, 1,934,906 tons (1,000,398); as well as wood-pulp and asbestos and other ores.

The gross investment in vessels, docks, wharves, warehouses, land and buildings, and equipment reported by the water transportation industry in 1950 amounted to \$230,632,000. Gross income received from this investment was \$190,773,000. The industry employed 19,905 workers and paid out \$40,100,000 in salaries and wages, an average of \$2,015 which did not include the value of meals and lodging estimated at \$5,746,000.

## Harbours

Eight of the principal harbours—Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Churchill and Vancouver—are administered by the National Harbours Board. Seven other harbours are administered by commissions that include municipal as well as federal appointees. In addition, there are about 300 public harbours, all of which come under the supervision of the Department of Transport.

Facilities provided to enable interchange movements include the necessary docks and wharves, warehouses, special equipment for handling bulk freight, harbour railways, grain elevators, coalbunkers and oil-storage tanks and, in some cases, dry-dock accommodation.

The freight loaded and unloaded at a larger port from sea-going vessels frequently constitutes a surprisingly small part of the total freight handled. Usually, the volume coming in or going out by coasting vessels is larger. It is not possible to obtain statistics of freight handled in all ports and harbours, but the water-borne cargo loaded and unloaded at the six principal ports in 1951 was as follows:—

|                   | <i>Inward</i> | <i>Outward</i> |
|-------------------|---------------|----------------|
|                   | tons          | tons           |
| Montreal.....     | 6,797,082     | 8,119,958      |
| Vancouver.....    | 5,961,684     | 5,196,216      |
| Halifax.....      | 2,296,266     | 1,582,009      |
| Saint John.....   | 1,028,729     | 1,328,836      |
| Three Rivers..... | 2,636,993     | 557,021        |
| Quebec.....       | 1,948,999     | 863,951        |

Operating revenues and expenditures of these six harbours in 1951 amounted to \$14,563,154 and \$8,782,347, respectively.

## Canals

There are six canal systems in Canada: (1) between Fort William and Montreal, (2) from Montreal to the International Boundary *via* the Richelieu near Lake Champlain, (3) from Montreal to Ottawa, (4) from Ottawa to Kingston, (5) from Trenton to Lake Huron, and (6) from the Atlantic Ocean to the Bras d'Or Lakes in Cape Breton. These canals open to navigation from the Atlantic about 2,000 miles of waterways.

The St. Lawrence River, improved by a system of canals above Montreal, and the Great Lakes with their connecting rivers and canals, form one of the busiest waterways in the world. The canals constructed between Montreal and Lake Superior include the Lachine, Soulanges, Cornwall, Farran's Point, Rapide Plat, Gallops, Welland Ship and Sault Ste. Marie.



Their aggregate length is 75.92 miles. The 31 locks on these canals overcome a rise in level of 554 feet. The canals on the St. Lawrence have a navigable depth of up to 14 feet but between the lakes the navigable depth is 25 feet, permitting the passage of large lake freighters from the Upper Lakes to Prescott on the St. Lawrence. Plans are under way for deepening the St. Lawrence channel to permit these freighters passage to the Atlantic and to allow large sea-going vessels to ply the Great Lakes.

In 1951, the tonnage of traffic using all three canals—the St. Lawrence, the Welland Ship and the Sault Ste. Marie—was 591,442. Traffic using the St. Lawrence system only amounted to 5,256,275 tons. Vessels moving between Lake Ontario and Lake Superior carried 3,968,414 tons. Of the 29,325,034 tons of freight passing through Canadian canals only during 1951, 87 p.c. was transported in Canadian vessels. For the Welland Ship Canal, the percentage was 79 and for the St. Lawrence canals, 97. Domestic vessels carried all freight passing through smaller canals.

### Civil Aviation

The control of civil aviation in Canada is under the jurisdiction of the Federal Government. The Department of Transport deals with the technical side which includes matters of registration of aircraft, licensing of airmen, establishment and maintenance of airports and facilities for air navigation, air traffic control, accident investigation, and the safe operation of aircraft. Certain statutory functions with respect to the issue of licences to operate commercial air services and the subsequent economic regulation of commercial air services in accordance with the dictates of the public interest are assigned to the Air Transport Board.

*One of Canada's largest grain carriers at Port Colborne, the Lake Erie entrance to the Welland Ship Canal.*





*Trans-Canada Air Lines North Star skyliner over Ottawa and Hull. These aircraft serve Canada on international, transcontinental and transatlantic routes.*

Air transport services are grouped into two broad classes: (1) Non-scheduled services, and (2) Scheduled services.

**Non-Scheduled Services.**—Non-scheduled services include specific point-to-point services not on regular time schedules; charter and contract services; and specialty services such as crop dusting, aerial photography, surveying, forest fire patrol, timber cruising and fish cultivation.

The non-scheduled services provide access to sections of Canada that are inaccessible by other means of transportation, and also act as feeders to the scheduled air lines. Vital to the exploration and development of the remote parts of Canada, the use of aircraft has made many northern projects economically sound and physically possible. Journeys which previously required months of slow and arduous travel by canoe and dog-team can now be accomplished in a few hours.

Millions of tons of supplies, equipment and machinery have been transported by air to those remote areas that would otherwise have had to await the building of many miles of roads or railways for their development.

At Mar. 31, 1952, there were 165 commercial operators licensed to conduct non-scheduled and specialty services, and there were 109 flying schools and flying clubs licensed to conduct flying training.

**Scheduled Services.**—*Trans-Canada Air Lines.*—During the calendar year 1951, Trans-Canada Air Lines provided air transportation for 980,000 passengers, a record volume of traffic in the company's 15-year history. The total



revenue mileage flown increased by 11 p.c. over 1950, with an additional 16-p.c. increase in revenue ton-miles. Growth of air transportation reflected the general expansion of Canadian economy, and the air line met the increased public demand for air travel by increasing flight frequency in existing routes rather than by geographical expansion of operations. The only exception was the inauguration of service between Montreal and Paris, which established, for the first time, a direct link between Canada and continental Europe.

At Dec. 31, 1951, Trans-Canada Air Lines was providing service for passenger, mail and commodity traffic over nation-wide routes totalling 9,126 miles, and overseas routes totalling 8,688 miles, touching at England, Scotland, Ireland, France, Bermuda, the Bahamas, Jamaica, Barbados and Trinidad.

In the domestic service, 949,849 revenue passengers, 4,094,521 ton-miles of mail, and 4,063,420 ton-miles of commodity traffic were carried in 1951-52 as compared with 838,271 passengers, 3,682,812 ton-miles of mail, and 3,876,670 ton-miles of commodity traffic in the previous year.

Overseas flights during 1951-52 accommodated 46,674 passengers, 542,156 ton-miles of mail, and 2,018,958 ton-miles of commodity transport, compared with 40,452 passengers, 409,998 ton-miles of mail, and 1,689,189 ton-miles of commodity transport in 1950-51.

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*Gander Airport, Nfld., the most strategic point on the trans-oceanic air route. It serves mainly as a refueling and service stop for all air traffic in the North Atlantic area which includes the United States, Bermuda, Canada, Europe and the Azores.*





*Canadian Pacific Air Lines Limited.*—This company operates scheduled domestic services with a total of 9,525 route miles together with overseas services from Vancouver to Australia, New Zealand and the Orient totalling 15,295 route miles.

The 15 scheduled domestic services operated by CPAL supply regular transport between the larger cities and the far northern terminals and intermediate points. The overseas services comprise a fortnightly service from Vancouver to Australia and New Zealand *via* San Francisco, Honolulu, Canton Islands and Fiji, and a weekly service to Tokyo and Hong Kong *via* the Great Circle.

Domestic operations during the year ended Mar. 31, 1952, with the preceding year's figures in parentheses were: 5,395,779 (4,753,788) revenue-miles, 68,431,051 (53,544,691) passenger-miles, 1,087,307 (1,072,892) cargo ton-miles and 572,644 (399,751) mail ton-miles were flown, and 177,476 (152,379) revenue passengers were carried.

Overseas operations during the same period, with preceding year's figures in parentheses, were: 2,666,247 (1,734,256) revenue-miles, 54,084,388 (34,113,629) revenue passenger-miles, 143,217 (113,507) cargo ton-miles and 91,285 (43,912) mail ton-miles were flown, and 12,650 (6,417) revenue passengers were carried.

*Maritime Central Airways Ltd.*—Operates scheduled services between Prince Edward Island, New Brunswick and Nova Scotia, and between the Magdalen Islands and Prince Edward Island.

*Queen Charlotte Airlines Ltd.*—Operates scheduled services connecting Vancouver and Victoria with points north in the Pacific coastal area.

*Central Northern Airways Ltd.*—Operates scheduled services out of Winnipeg into the mining area of northwestern Ontario.

*Rimouski Airlines Ltd.*—Operates a scheduled service on the north shore of the St. Lawrence River.

**International Agreements.**—Canada's position in the field of aviation as well as its geographical location makes imperative its co-operation with other nations of the world engaged in international civil aviation. Canada played a major part in the original discussions that led to the establishment of the International Civil Aviation Organization now with permanent headquarters at Montreal. Canada has actively participated in the deliberation of ICAO and its many committees and, as a result, has secured the benefits of the joint knowledge and experience of all Member States in the technical and economic aspects of every phase of civil aviation.

In recent years Canada has been a signatory to agreements concerning civil aviation with Australia, Belgium, Denmark, France, Ireland, The Netherlands, New Zealand, Norway, Portugal, Sweden, United Kingdom and United States. On the North Atlantic, Canada was given extended rights for traffic from Ireland, Iceland and the Azores, and also rights in Brussels by the Belgian Government and landing rights in France by the French Government.

On the Caribbean route, rights have been obtained in Florida from the United States and for points of call in British territories. In the Pacific, agreements provide for calls at Honolulu, Fiji and Hong Kong. In the trans-border field, TCA has the right to operate from Montreal to New York, and

The aeroplane is extending the concept of Canada farther and farther northward. From Yellowknife to Ungava, millions of pounds of freight are now moving in and out of the hinterland over the highways of the air. Many of the large mining and power developments under way are dependent almost entirely on the aeroplane which has demonstrated its ability to carry everything required to build a railroad, to bring a mine into production or to create and maintain an isolated community.



from Montreal and Toronto to the Bahamas and Jamaica with stops at Tampa or St. Petersburg, Florida. Operating certificates have been issued to 14 Commonwealth and foreign scheduled services flying into Canada.

## ***Telegraphs and Cables***

In 1951 there were seven telegraph systems operating in Canada, four in conjunction with the railways, two operated by the Federal Government, and one small system owned and operated independently. One United States company uses lines crossing Canadian territory.

On Apr. 1, 1950, a new Crown corporation, the Canadian Overseas Telecommunication Corporation, took over the operations and external telecommunications assets in Canada of the Halifax and Bermudas Cable Company, the Pacific Cable Board, Cable and Wireless, Ltd., and the Canadian Marconi Company. This new Crown corporation was sanctioned by Parliament in 1949 to establish public ownership and consolidation of the radio and cable systems in line with the recommendations of the Commonwealth Telegraphs Conference held in Australia in 1942. The Corporation now operates 23,826 nautical miles of cable and a trans-oceanic wireless system. In addition to the Crown corporation, two private companies operate cable and wireless systems. In all there are 35 cables between Canada and the United States, England, Ireland, the Azores, Australia, New Zealand, St. Pierre and Miquelon, and Bermuda. Two cables link North Sydney and Canso, N.S., three cables North Sydney and Newfoundland, and three cables Canso, N.S., and Newfoundland.

These systems have 430,050 miles of telegraph wire in Canada, 5,298 miles outside of Canada, and 62,942 nautical miles of submarine cable between Canada and other countries. Multiple circuits in 1951 produced 1,263,304 miles of channels for telegraphic use. In the same year, a total of 21,815,837 telegrams and 1,785,836 cablegrams, excluding messages between foreign countries, were handled by these systems.

## ***Telephones***

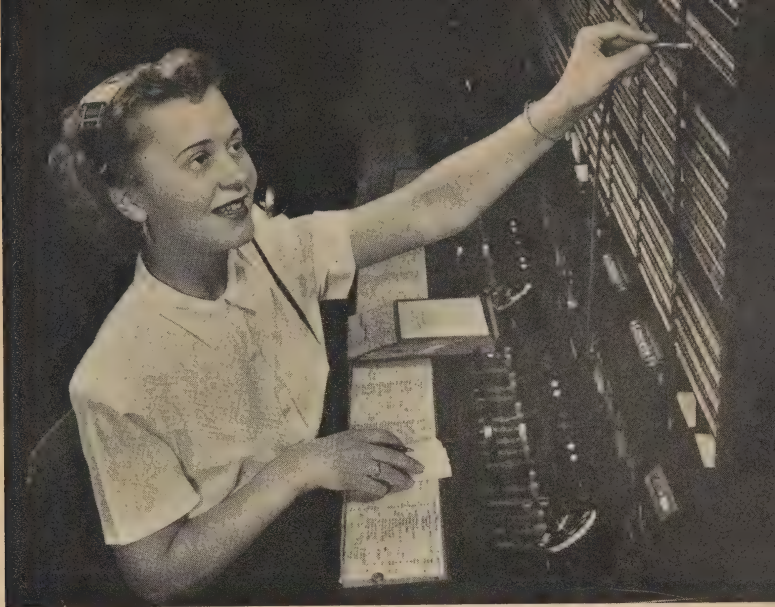
At the end of 1951, Canada had 3,113,766 telephones or 22 per 100 population. The estimated number of telephone calls on all systems in Canada reached a peak of 5,273,644,419 in 1951; representing an average of 1,694 calls per telephone or 376 calls per head of population. Long-distance calls, too, attained a new record at 127,406,419, and calls to other countries were generally higher. Canadians are currently within telephone reach of 87 countries and connections are possible with nearly 96 p.c. of all telephones in the world.

Of the 2,904 telephone systems operating in 1951, no fewer than 2,255 were co-operatively owned systems serving the rural districts in most provinces. The largest of the 448 stock companies were the Bell Telephone Company and the British Columbia Telephone Company; the former, with its subsidiaries, operating in Ontario, Quebec and New Brunswick, reported 62 p.c. of all telephones in Canada. The provincial systems of the Prairie Provinces reported 11 p.c. of the total. Provincial and federal systems serve outlying districts where no commercial service is available.

Since the end of the War, the operations of the telephone companies have grown impressively and this progress has been paralleled by some remarkable



A switchboard operator in the Canadian Government exchange, through which all government telephones are connected to outside lines.



technical advances. The adaptation of the principles of radio transmission, introduced in 1928, has been extended so that to-day the standard carrier systems transmit 16 separate conversations on open wire and 12 on cable. Special equipment has been installed to permit the use of cable carrier for distances of 20 to 200 miles; previously it had been used only on longer routes.

Carrier has added greatly to the capacity of the country's long-distance network, and most long-distance calls are now put through while the caller holds the receiver. Expansion is also taking place in operator toll-dialing, whereby a long-distance operator in one city may dial the actual number required in another city belonging to the same inter-toll dialing group, instead of passing the call to an operator.

There have been advances also in radio-telephony. Mobile telephone service is now provided in several Canadian cities and a number of micro-wave units have been set up since the War. These are useful as substitute submarine cable over short distances—between Prince Edward Island and the mainland, for example, and across the St. Lawrence at Quebec city. Canada possesses an intricate, efficient telephone network which permits the average Canadian to make more use of telephone service than a citizen of most other countries in the world.

Capital investment in telephone systems amounted to 909,581,399 in 1951 and employees, numbering 47,387, received \$117,677,652 in salaries and wages.

## Radio

At Oct. 1, 1952, there were operating in Canada 157 standard broadcast band stations, of which 20 were Canadian Broadcasting Corporation stations and 137 were privately owned stations. In addition there were 35 shortwave stations, 27 of which were CBC and 8 privately owned, together with 5 CBC and 31 privately owned frequency-modulation stations.



*The raised finger means one minute to go before the start of another foreign-language program over the CBC's International Service. Here members of the CBC Spanish-language staff are about to broadcast to Latin America and the Caribbean.*

**Canadian Broadcasting Corporation.**—The publicly owned Canadian Broadcasting Corporation is operated as a national public service; privately owned stations provide local community service, and many are affiliated with the CBC networks. As constituted under the Broadcasting Act, the CBC is responsible to Parliament through a Minister of the Crown. From time to time the work of the CBC is reviewed by a special committee of the House of Commons. The last such committee, reporting in December 1951, endorsed the earlier recommendations of the Royal Commission on National Development in the Arts, Letters and Sciences, which had made an exhaustive study of broadcasting in Canada. The Commission had recommended that the CBC continue to have direction and control over radio broadcasting in Canada, and that it have the same control over television.

CBC policy is determined by a Board of 11 Governors who act as trustees of the national interest in broadcasting. The Governors, representing the main geographic divisions of Canada and various facets of Canadian life, are appointed by the Governor General in Council for three-year terms. The Chairman is appointed for a ten-year term on a full-time basis. Day-to-day operations and administration of the system are the responsibility of a General Manager and an Assistant General Manager. The CBC's income for radio broadcasting is derived from an annual statutory grant and from income from commercial programs. Less than 24 p.c. of the total hours of network broadcasting is devoted to commercial programs.

*Radio Broadcasting Facilities and Program Service.*—The CBC operates 56 transmitters for its National Service and two for the International Service. Twenty are standard band AM stations, and eight of these are of 50,000 watts, to give good service to rural areas. Five are frequency-modulation transmitters; four are shortwave transmitters (used on 11 frequencies) to reach



remote areas; 27 are low-power "repeater" transmitters operating automatically with the network lines and serving sparsely settled areas. Twenty additional repeater stations are to be installed. CBC network service reaches more than 95 p.c. of the radio homes in Canada. Program service extends from St. John's, N'f'ld., in the east to Vancouver Island in the west. The Trans-Canada and Dominion networks serve English-speaking listeners from sea to sea, and the French network serves French-speaking listeners in the Province of Quebec, northern Ontario and in Western Canada. One hundred and eleven of the privately owned stations in Canada function as network outlets.

Canada's system of broadcasting is designed to overcome the problems posed by great distances, a scattered population, two official languages and seven of the world's 24 time zones. Programs are planned regionally as well as nationally on CBC networks not only to provide as complete a service as possible during the broadcasting hours of each region but also to fulfill the regional needs and tastes of the listening public in various parts of the country. National programs are planned with a view to uniting the cultural tastes and interests of Canadians and to provide good radio entertainment from each of the main program production centres.

Through CBC facilities, schools across Canada are provided with at least 30 minutes daily of broadcast programs specifically planned by departments

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*Studio scene as the CBC Light Opera Company presents a Gilbert and Sullivan operetta over the air.*







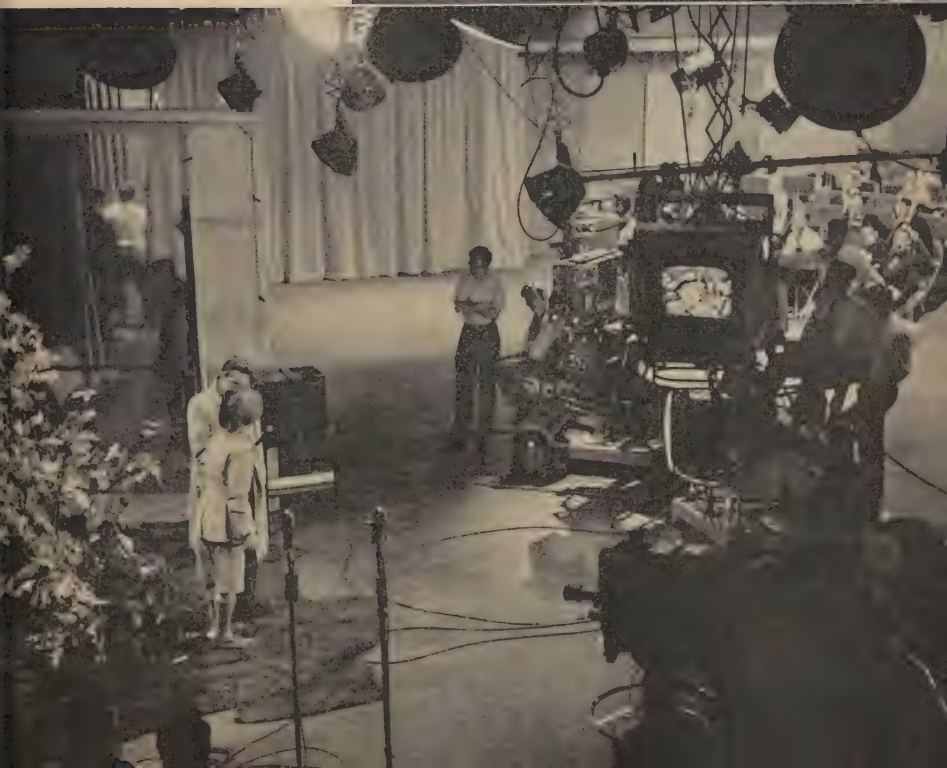
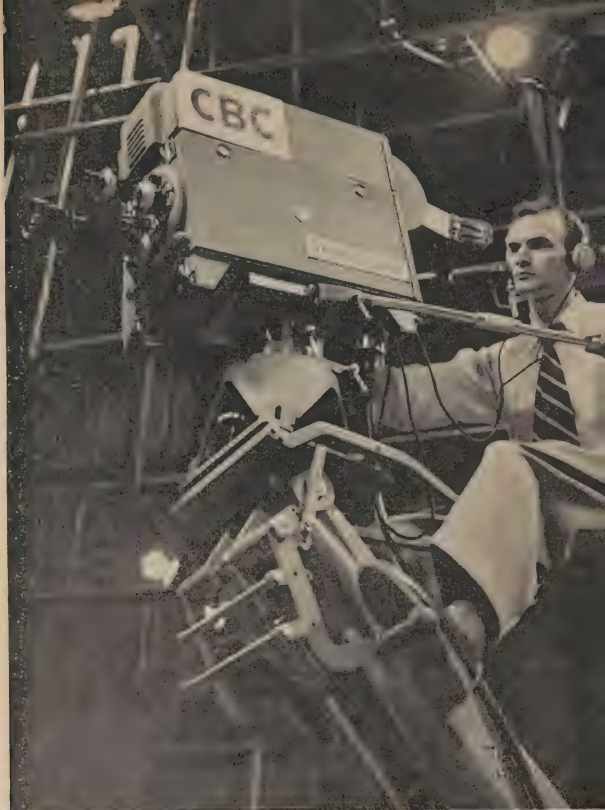
CBC National School Broadcasts are planned by experts to suit classroom needs. They supplement the teacher's efforts with dramatizations of historical happenings, nature study descriptions and character studies of important Canadian personages.

of education to meet classroom requirements. In addition, national school broadcasts, prepared with the advice of the departments of education and teachers and financed by the CBC, are heard Fridays. Canada's agricultural population is served by the most complete service of farm broadcasts in the world, including the weekly *National Farm Radio Forum*. A comparable program, *Citizens' Forum*, provides a national platform for discussion of topics of current interest. Programs of interest to women are scheduled for afternoon listening, there are special children's programs for out-of-school listening, and time is allotted regularly for religious programs. Free-time political broadcasts arranged with the parties concerned are heard both nationally and regionally. For listeners with discriminating tastes in programs, the special *CBC Wednesday Night* program offers a full evening of drama, music, talks, poetry, recitals and performances by such groups as the CBC Opera Company.

*Television.*—The first two CBC television stations began regular program service early in September 1952—CBLT in Toronto, Channel 9, and CBFT, Montreal, Channel 2. Both stations are fully equipped centres for the production of Canadian television programs, and began operations with a varied schedule of plays (ranging up to 90-minute productions), variety shows, films, discussion programs, televised music programs and sports. CBFT, Montreal, transmits programs in both English and French—CBLT, Toronto, in English only.

To launch Canadian television, the CBC arranged three loans from the Government, totalling \$8,000,000. This money served to construct the first two program production centres and stations (in the country's two largest

*The beginning of regular CBC television transmissions from Toronto and Montreal brought to a climax many months of planning, construction, training and rehearsing. These two stations serve approximately 30 p.c. of the population of Canada. Plans call for stations at Vancouver and Winnipeg in Western Canada, in the Ottawa, Windsor, Hamilton and London areas of Ontario and at Quebec city, which will raise the coverage to 50 p.c.*



population centres); to hire and train the staffs and buy the necessary technical facilities; to pay for training productions and test telecasts; and to provide funds for the first two months of regular service. It also provided for a start on a third television station, at Ottawa, and for payments for the use of a network link which will join the three stations together and provide a connection with United States television systems.

*CBC International Service.*—The International Service is operated by the Canadian Broadcasting Corporation on behalf of the Government of Canada. Its finances are provided wholly by a parliamentary appropriation; it uses none of the revenue of the CBC designated for its service to Canadian listeners. The policies of the International Service are formulated through consultation with the Department of External Affairs and with an Advisory Committee on which are represented the Department of External Affairs, the Department of Trade and Commerce, the Privy Council, the National Film Board and the CBC.

Since its inception in February 1945, the International Service of the CBC has been steadily expanding and programs are now heard abroad in 15 languages. The *Voice of Canada* Russian-language programs are timed to coincide with those of the British Broadcasting Corporation and the *Voice of America*. The CBC's shortwave transmitters at Sackville, N.B., send out the strongest signal to be heard in Europe from North America.

A monthly program schedule designed to provide factual information about Canada is distributed free to listeners on request. Two editions are published, one for Europe and one for Latin America and the Caribbean. They have a combined circulation of more than 100,000.

In addition to broadcasting Canadian programs some 14 to 15 hours daily, an increasing number of programs are relayed over national networks in foreign countries. Programs are also relayed daily to Canadian forces in Korea and Europe. An important function of "Radio Canada" has been the coverage of United Nations activities by means of reports and interviews by the CBC correspondent and the foreign-language correspondents at UN headquarters at New York. The CBC International Service also places its transmitters at the disposal of the United Nations Radio Division for the broadcasting of its official reports and commentaries to Europe and to the south Pacific.

## **Postal Service**

Postal service in Canada is provided from Newfoundland to the west coast of Vancouver Island, and from Pelee Island, Ont., the most southerly point of Canada, to settlements and missions far within the Arctic.

Various facilities are used in the transporting of mails—railways, aircraft, motor-vehicles and inland and coastal steamers—but the principal means is the railway mail service which operates on about 40,000 miles of track and covers an annual track mileage exceeding 47,000,000. There are about 1,343 railway mail clerks employed in sorting and exchanging mails while *en route* in postal railway cars and in steamers serving the coastal settlements of Newfoundland. The far northerly points receive mail by steamer, air-stage service and aircraft courtesy flights.



*Bagging letter mail  
for shipment by  
rail.*



Canada's air-mail system provides several flights daily and constitutes a great air artery from St. John's, Nfld., to Victoria, B.C., intersected with branch and connecting lines radiating to every section of the country and linking up with the United States air-mail system. All first-class domestic mail up to and including one ounce in weight is carried by air between one Canadian point and another, whenever delivery is thus facilitated. There are, altogether, approximately 31,653 miles of air-mail and air-stage routes in Canada.

Post offices are established for the transaction of all kinds of postal business at places where the population warrants, and letter-carrier delivery is given in 126 cities and towns. An extensive organization distributes mail to rural districts: 5,200 rural mail routes are in operation covering 120,750 miles of road and serving 397,084 rural mail boxes, and the majority of these receive daily service. Rural mail routes are generally circular in pattern and average 23 miles in length. Some 4,700 side services are in operation to transport mail between post offices, railway stations, steamer wharves and airports, while 3,050 stage services operate to service post offices not situated on railway lines. In cities and larger towns there are approximately 500 services conveying mails to and from sub post offices, postal stations, and railway stations, collecting mails from street letter boxes and delivering parcel post. In all, approximately 13,450 land mail service couriers travel in the neighbourhood of 50,000,000 miles annually. Land mail services are performed under a contract system, the contracts being awarded to the lowest tenderer who must provide all the requisite equipment.

An estimated 2,932,000,000 items of mail are delivered annually, requiring the utilization of the most up-to-date mechanical handling devices. There were, in all, 12,390 post offices and 11,320 money-order offices in operation across the country on Mar. 31, 1951. For the year ended on that date, postage paid by means of postage stamps amounted to \$57,178,573 and the gross postal revenue was \$122,278,760. Post Office Savings Banks in operation in all parts of the country had combined deposits of \$38,031,232.



*The wheat lands of the prairies in 1952 produced the greatest crop this nation has ever known, straining elevator capacities. Conveyor tubes are sending rivers of golden wheat rushing into ships' holds bound for overseas markets and Canadian mills.*



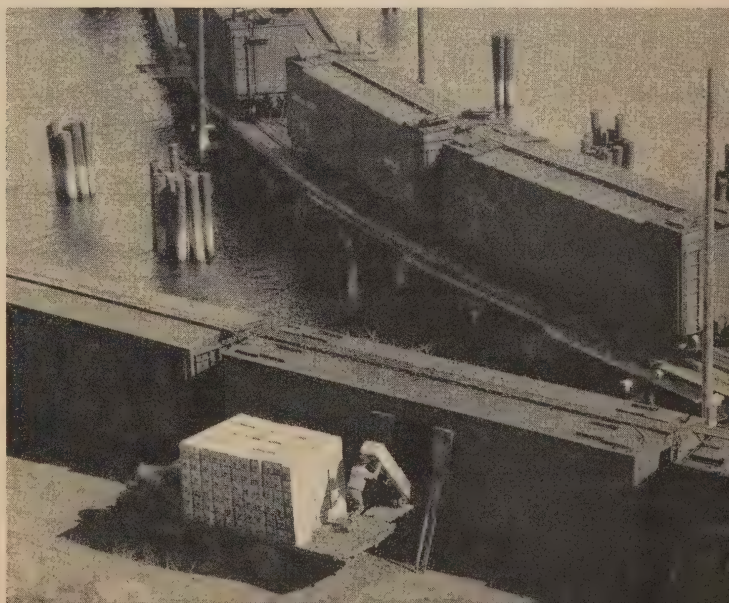
# Domestic Trade

THE term "domestic trade", taken in a broad sense, encompasses a very wide range of activities. It includes all values added to commodities traded by agencies and services connected with the transportation, storage, distribution and sale of goods such as railways, steamships, warehouses, wholesale and retail stores, financial institutions, and so on. It also takes into account various professional and personal services pertaining to medical attention, education, entertainment, etc., required in the every-day round of living. However, in this small publication, only certain phases of the merchandising field can be covered, which information is followed by brief data on wholesale prices and the consumer price index.

## • Merchandising

A complete coverage of the multiplicity of establishments making up Canada's distributive system is attempted only in census years. The census results are supplemented by statistical measurements of month-to-month and year-to-year changes in the more important segments of distribution by means of sample surveys in some fields and by complete coverage in others. For the 1951 Census of Distribution, questionnaires were sent out to all wholesale, retail and service establishments early in 1952 to cover 1951 operations. The results will be known and made available in bulletin form early in 1953.

**Retail Trade.**—From Canadian fields and farms, forests, mines, stockyards, factories and mills, from the seaports and across the International Boundary commodities travel through innumerable channels to converge finally on the



*Constant investigation is carried on by establishments concerned with the transportation and storage of perishable foods in order that they may reach the consumer market in the best possible condition, no matter how distant that market may be from the specialized producing district.*



retail outlets before being dispersed again to the consuming public. Thus the retailer occupies a primary place between producer and consumer and is the most important link in the distribution chain.

The total value of retail trade passed the \$10,000,000,000 mark for the first time in 1951 and continued to a still higher dollar level in 1952, particularly toward the latter part of the year. In the latest period, sales of motor-vehicles, furniture, household appliances and radios showed greater increases than sales of non-durable merchandise items. Estimates for some of the more important trades and sales by provinces are given in the following tables.

### *Retail Store Sales for Selected Types of Business, 1941, 1951 and 1952*

(Exclusive of the Yukon and Northwest Territories and Newfoundland)

| Type of Business                           | Sales          |                 |                 | Percentage Change— |               |
|--------------------------------------------|----------------|-----------------|-----------------|--------------------|---------------|
|                                            | 1941           | 1951            | 1952            | 1951-52            | 1941-52       |
|                                            | \$'000,000     | \$'000,000      | \$'000,000      |                    |               |
| Grocery and combination stores..           | 567.3          | 1,709.3         | 1,851.2         | +8.3               | +226.3        |
| Meat stores.....                           | 80.0           | 196.9           | 189.4           | -3.8               | +136.8        |
| Country general stores.....                | 213.3          | 520.7           | 534.8           | +2.7               | +150.7        |
| Department stores.....                     | 377.8          | 901.7           | 969.3           | +7.5               | +156.6        |
| Variety stores.....                        | 85.2           | 189.6           | 205.3           | +8.3               | +141.0        |
| Motor-vehicle dealers.....                 | 360.2          | 1,954.8         | 2,115.1         | +8.2               | +487.2        |
| Garages and filling stations.....          | 205.1          | 526.4           | 553.8           | +5.2               | +170.0        |
| Men's clothing stores.....                 | 79.9           | 199.0           | 201.0           | +1.0               | +151.6        |
| Family clothing stores.....                | 73.8           | 176.3           | 189.9           | +7.7               | +157.3        |
| Women's clothing stores.....               | 71.1           | 187.2           | 202.4           | +8.1               | +184.7        |
| Shoe stores.....                           | 44.0           | 100.3           | 106.6           | +6.3               | +142.3        |
| Hardware stores.....                       | 73.1           | 202.0           | 207.1           | +2.5               | +183.3        |
| Lumber and building materials dealers..... | 79.8           | 360.9           | 374.3           | +3.7               | +369.0        |
| Furniture stores.....                      | 64.1           | 168.7           | 200.1           | +18.6              | +212.2        |
| Appliance and radio stores.....            | 45.9           | 152.6           | 171.2           | +12.2              | +273.0        |
| Restaurants.....                           | 126.6          | 379.6           | 397.4           | +4.7               | +213.9        |
| Coal and wood dealers.....                 | 98.6           | 204.4           | 211.8           | +3.6               | +114.8        |
| Drug stores.....                           | 100.9          | 231.8           | 247.8           | +6.9               | +145.6        |
| All other trades.....                      | 690.3          | 2,155.0         | 2,346.9         | +8.9               | +240.0        |
| <b>Totals.....</b>                         | <b>3,436.9</b> | <b>10,517.3</b> | <b>11,275.4</b> | <b>+7.2</b>        | <b>+228.1</b> |

### *Retail Store Sales, by Provinces, 1941, 1951 and 1952*

| Province                              | Sales          |                 |                 | Percentage Change— |               |
|---------------------------------------|----------------|-----------------|-----------------|--------------------|---------------|
|                                       | 1941           | 1951            | 1952            | 1951-52            | 1941-52       |
|                                       | \$'000,000     | \$'000,000      | \$'000,000      |                    |               |
| Maritime Provinces <sup>1</sup> ..... | 282.8          | 712.9           | 777.8           | + 9.1              | +175.0        |
| Quebec.....                           | 818.7          | 2,466.1         | 2,631.3         | + 6.7              | +221.4        |
| Ontario.....                          | 1,407.0        | 4,037.8         | 4,255.8         | + 5.4              | +202.5        |
| Manitoba.....                         | 210.8          | 656.3           | 676.6           | + 3.1              | +221.0        |
| Saskatchewan.....                     | 186.9          | 631.9           | 724.8           | +14.7              | +287.8        |
| Alberta.....                          | 221.1          | 818.4           | 912.5           | +11.5              | +312.7        |
| British Columbia.....                 | 309.6          | 1,193.9         | 1,296.6         | + 8.6              | +318.8        |
| <b>Totals.....</b>                    | <b>3,436.9</b> | <b>10,517.3</b> | <b>11,275.4</b> | <b>+ 7.2</b>       | <b>+228.1</b> |

<sup>1</sup> Exclusive of Newfoundland.

The number of new passenger cars sold was lower in 1951 than in 1950, but rose again to 292,054, valued at \$724,960,046 in 1952. Of all the new cars sold in the latter year, 43 p.c. were financed by finance companies, the highest proportion of sales recorded for any one year.



*Cars parked before the gateway to Exhibition Park, Toronto, where Canadian manufacturers and distributors annually exhibit their products and services to a vast potential market, numbering in the neighbourhood of two and a half million persons.*

### New Passenger-Car Sales and Financing, 1949, 1951 and 1952

| Province                       | 1950           |               |             | 1951           |               |             | 1952           |                |             |
|--------------------------------|----------------|---------------|-------------|----------------|---------------|-------------|----------------|----------------|-------------|
|                                | Sold           |               | p.c.        | Sold           |               | p.c.        | Sold           |                | p.c.        |
|                                | No.            | No.           |             | No.            | No.           |             | No.            | No.            |             |
| Atlantic.....                  | 25,767         | 8,896         | 34.5        | 19,176         | 5,841         | 30.5        | 21,529         | 9,737          | 45.2        |
| Quebec.....                    | 57,643         | 20,365        | 35.3        | 52,786         | 18,080        | 34.3        | 58,756         | 27,507         | 46.8        |
| Ontario.....                   | 142,972        | 38,047        | 26.6        | 121,479        | 31,489        | 25.9        | 124,624        | 48,874         | 39.2        |
| Manitoba.....                  | 16,921         | 4,889         | 28.9        | 16,668         | 4,777         | 28.7        | 16,351         | 6,570          | 40.2        |
| Saskatchewan...                | 19,184         | 5,405         | 28.2        | 18,013         | 5,768         | 32.0        | 19,488         | 7,952          | 40.8        |
| Alberta.....                   | 25,908         | 8,630         | 33.3        | 22,448         | 8,670         | 38.6        | 25,174         | 13,251         | 52.6        |
| British Columbia               | 36,508         | 10,819        | 29.6        | 25,116         | 7,101         | 28.3        | 26,132         | 10,885         | 41.7        |
| <b>Totals<sup>1</sup> ....</b> | <b>324,903</b> | <b>97,051</b> | <b>29.9</b> | <b>275,686</b> | <b>81,726</b> | <b>29.6</b> | <b>292,054</b> | <b>124,776</b> | <b>42.7</b> |

<sup>1</sup> Newfoundland not included in 1950.

According to the 1951 Census figures, 479 chain stores operated in that year and reported 16.4 p.c. of the total sales of all retail stores. These figures may be compared with those of the 1941 Census which showed 529 chain stores reporting 18.6 p.c. of the total retail sales. Firms considered as 'chains' are those operating four or more stores under the same ownership and carrying on the same type or related types of business. Department stores are not included—they are considered independents regardless of the number of stores operating.

# Chain Store Statistics, 1930, 1941 and 1945-51

(Exclusive of Newfoundland)

| Year      | Stores  | Retail Sales | Salaries to Store Employees | Stocks on Hand, End of Year |           | Accounts Outstanding, End of Year |
|-----------|---------|--------------|-----------------------------|-----------------------------|-----------|-----------------------------------|
|           |         |              |                             | Store                       | Warehouse |                                   |
|           | Av. No. | \$'000       | \$'000                      | \$'000                      | \$'000    | \$'000                            |
| 1930..... | 8,097   | 487,336      | 50,405                      | 60,457                      | ..        | ..                                |
| 1941..... | 7,622   | 639,210      | 57,777                      | 68,619                      | 20,976    | 38,376                            |
| 1945..... | 6,580   | 876,209      | 68,196                      | 68,247                      | 29,013    | 16,369                            |
| 1946..... | 6,559   | 1,014,847    | 77,474                      | 85,345                      | 37,436    | 19,643                            |
| 1947..... | 6,716   | 1,177,323    | 91,266                      | 105,041                     | 43,546    | 31,493                            |
| 1948..... | 6,821   | 1,335,735    | 107,450                     | 119,132                     | 46,330    | 40,378                            |
| 1949..... | 6,838   | 1,420,081    | 115,903                     | 123,696                     | 46,755    | 50,001                            |
| 1950..... | 7,155   | 1,559,693    | 129,334                     | 159,083                     | 60,501    | 65,001                            |
| 1951..... | 7,585   | 1,726,354    | 144,792                     | 178,799                     | 59,504    | 53,169                            |

*Retail Consumer Credit.*—Consumer credit has been influenced in recent years by the imposition of Government controls and later by the relaxation of such controls. The greatest fluctuations have been shown in instalment sales.

## Retail Consumer Credit Statistics, 1941 and 1949-52

(Exclusive of the Yukon and Northwest Territories and Newfoundland)

| Period                         | Sales during Period |            |         |             | Accounts Receivable at End of Period |        |       |
|--------------------------------|---------------------|------------|---------|-------------|--------------------------------------|--------|-------|
|                                | Cash                | Instalment | Charge  | Total Sales | Instalment                           | Charge | Total |
| Dollar Estimates (in millions) |                     |            |         |             |                                      |        |       |
| 1941.....                      | 2,460.7             | 305.9      | 670.2   | 3,436.8     | 82.5                                 | 157.4  | 239.9 |
| 1949.....                      | 6,192.2             | 515.0      | 1,720.7 | 8,427.9     | 139.8                                | 327.7  | 467.5 |
| 1950.....                      | 6,884.4             | 720.1      | 1,862.9 | 9,467.4     | 169.5                                | 377.1  | 546.6 |
| 1951.....                      | 7,532.7             | 816.2      | 2,168.4 | 10,517.3    | 104.0                                | 401.5  | 505.5 |
| 1951—Jan.-Mar.....             | 1,586.0             | 192.9      | 481.7   | 2,260.6     | 143.2                                | 348.7  | 491.9 |
| Apr.-June.....                 | 1,997.2             | 211.3      | 547.6   | 2,756.1     | 121.8                                | 356.5  | 478.3 |
| July-Sept.....                 | 1,918.7             | 207.6      | 543.3   | 2,669.6     | 99.8                                 | 356.9  | 456.7 |
| Oct.-Dec.....                  | 2,030.8             | 204.4      | 595.8   | 2,831.0     | 104.0                                | 401.5  | 505.5 |
| 1952—Jan.-Mar.....             | 1,609.5             | 199.3      | 505.4   | 2,314.2     | 96.5                                 | 352.5  | 449.0 |
| Apr.-June.....                 | 2,027.6             | 350.5      | 573.6   | 2,951.7     | 136.3                                | 397.1  | 533.4 |
| July-Sept.....                 | 1,990.0             | 314.0      | 566.5   | 2,870.5     | 180.3                                | 420.8  | 601.1 |
| Percentage Composition         |                     |            |         |             |                                      |        |       |
| 1941.....                      | 71.6                | 8.9        | 19.5    | 100.0       | 34.4                                 | 65.6   | 100.0 |
| 1949.....                      | 73.5                | 6.1        | 20.4    | 100.0       | 29.9                                 | 70.1   | 100.0 |
| 1950.....                      | 72.7                | 7.6        | 19.7    | 100.0       | 31.0                                 | 69.0   | 100.0 |
| 1951.....                      | 71.6                | 7.8        | 20.6    | 100.0       | 20.6                                 | 79.4   | 100.0 |
| 1951—Jan.-Mar.....             | 70.2                | 8.5        | 21.3    | 100.0       | 29.1                                 | 70.9   | 100.0 |
| Apr.-June.....                 | 72.5                | 7.6        | 19.9    | 100.0       | 25.5                                 | 74.5   | 100.0 |
| July-Sept.....                 | 71.9                | 7.8        | 20.3    | 100.0       | 21.9                                 | 78.1   | 100.0 |
| Oct.-Dec.....                  | 71.7                | 7.2        | 21.1    | 100.0       | 20.6                                 | 79.4   | 100.0 |
| 1952—Jan.-Mar.....             | 69.6                | 8.6        | 21.8    | 100.0       | 21.5                                 | 78.5   | 100.0 |
| Apr.-June.....                 | 68.7                | 11.9       | 19.4    | 100.0       | 25.6                                 | 74.4   | 100.0 |
| July-Sept.....                 | 69.3                | 11.0       | 19.7    | 100.0       | 30.0                                 | 70.0   | 100.0 |

In the consumer credit surveys only those trades in which extension of credit plays an important part are included. Retail trade instalment sales were estimated at \$816,200,000 in 1951, 13 p.c. above the 1950 figure. In the same comparison, charge-account sales increased 16 p.c. and cash sales 9 p.c. In the first nine months of 1952, instalment sales increased 41 p.c.



*In the modern department store, planned lighting and open display arrangements make shopping an easy and pleasant task.*





Mail order selling is the most efficient form of retailing yet devised and the growth of this type of business since the War has far surpassed that of other retail outlets. An estimate places Canadian mail order business at well over one-fifth of all department store sales.

over the same period of 1951, charge sales 5 p.c., and cash sales 2 p.c. Balances outstanding at the end of September 1952 stood at an unprecedented high level, to which both types of credit contributed.

*Operating Results of Retailers.*—Surveys on the operating results of retail stores are conducted on a biennial basis; independent stores in certain major retail trades are covered in one year and retail chain stores and certain wholesale trades in the alternate year. Latest figures available for both groups are given in the following table.

### Operating Results of Retail Independent and Chain Stores, based on 1950 Operations

(Exclusive of the Yukon and Northwest Territories and Newfoundland)

NOTE.—Items, except stock turnover, are expressed as percentages of net sales.

| Type of Business           | Gross Profit | Salaries and Wages <sup>1</sup> | Occu-pancy Expense | Total Expenses | Net Profit <sup>2</sup> | Stock Turn-over <sup>3</sup> |
|----------------------------|--------------|---------------------------------|--------------------|----------------|-------------------------|------------------------------|
|                            | p.c.         | p.c.                            | p.c.               | p.c.           | p.c.                    | No.                          |
| <b>Independent Stores—</b> |              |                                 |                    |                |                         |                              |
| Grocery and meat.....      | 14.9         | 5.3                             | 2.6                | 10.8           | 4.1                     | 13.9                         |
| Women's clothing.....      | 26.8         | 8.2                             | 5.9                | 19.1           | 7.7                     | 3.5                          |
| Family shoe.....           | 27.4         | 7.6                             | 5.4                | 16.8           | 10.6                    | 1.9                          |
| Hardware.....              | 25.8         | 7.4                             | 3.9                | 15.4           | 10.4                    | 2.4                          |
| Furniture.....             | 27.0         | 6.7                             | 4.9                | 18.3           | 8.7                     | 2.9                          |
| Filling station.....       | 18.7         | 6.8                             | 3.9                | 12.7           | 6.0                     | 22.2                         |
| Restaurant.....            | 38.7         | 19.1                            | 9.2                | 32.2           | 6.5                     | 22.5                         |
| Fuel.....                  | 20.6         | 4.1                             | 2.1                | 15.5           | 5.1                     | 13.2                         |
| Drug.....                  | 28.9         | 8.5                             | 4.6                | 17.0           | 11.9                    | 3.4                          |
| Jewellery.....             | 38.8         | 11.2                            | 6.9                | 24.8           | 14.0                    | 1.4                          |
| <b>Chain Stores—</b>       |              |                                 |                    |                |                         |                              |
| Grocery.....               | 15.5         | 8.5                             | 1.2                | 14.1           | 1.4                     | 10.6                         |
| Combination.....           | 15.8         | 7.6                             | 1.0                | 12.7           | 3.1                     | 18.2                         |
| Meat.....                  | 15.8         | 9.8                             | 1.3                | 15.4           | 0.4                     | 44.3                         |
| Men's clothing.....        | 28.7         | 14.1                            | 3.4                | 26.2           | 2.5                     | 2.5                          |
| Family clothing.....       | 28.8         | 14.6                            | 3.1                | 26.8           | 2.0                     | 3.4                          |
| Women's clothing.....      | 28.3         | 12.2                            | 4.8                | 25.6           | 2.7                     | 5.7                          |
| Shoe.....                  | 31.5         | 14.6                            | 4.6                | 26.5           | 5.1                     | 2.5                          |
| Variety.....               | 37.8         | 17.1                            | 3.0                | 27.6           | 10.2                    | 4.9                          |
| Furniture.....             | 30.7         | 12.6                            | 3.4                | 27.2           | 3.5                     | 3.1                          |
| Drug.....                  | 33.7         | 18.0                            | 4.3                | 30.5           | 3.2                     | 3.7                          |

<sup>1</sup> Independent store salaries do not include delivery service or proprietors' withdrawals. Chain store salaries include those paid to executives.

<sup>2</sup> Independent store net profits are computed before deduction of proprietors' salaries and income tax. Chain store net profit is before income tax deduction.

<sup>3</sup> Cost of goods divided by average of year beginning and ending inventories.

**Wholesale Trade.**—Monthly index numbers of sales are calculated for nine wholesale trades, based on reports received from a sample of firms whose sales made up about 68 p.c. of the total volume of business done by wholesalers proper in those trades in 1941. The sample of reporting firms is limited to wholesalers proper, i.e., wholesale establishments that perform the complete functions of jobbers, and wholesalers buying merchandise in large quantities on their own account and selling in broken lots. The volume of wholesale sales in Canada, measured by an index of sales, was 13 p.c. higher in 1951 than in 1950. All of the nine trades surveyed reported increases.

### *Indexes of Wholesale Sales, by Types of Business, 1941 and 1945-51*

(1935-39 = 100)

(Exclusive of the Yukon and Northwest Territories and Newfoundland)

| Type of Business                    | 1941         | 1945         | 1946         | 1947         | 1948         | 1949         | 1950         | 1951         | P.C.<br>Change<br>1950-51 |
|-------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------------------|
| Automotive equipment.               | 157.8        | 242.8        | 334.0        | 369.8        | 379.9        | 397.6        | 429.2        | 510.3        | + 18.9                    |
| Drugs.....                          | 145.2        | 222.1        | 245.2        | 254.6        | 281.8        | 305.5        | 313.8        | 347.3        | + 10.7                    |
| Clothing.....                       | 142.8        | 186.3        | 229.3        | 255.4        | 265.1        | 248.2        | 248.0        | 252.6        | + 1.9                     |
| Footwear.....                       | 141.6        | 224.0        | 279.4        | 300.8        | 286.8        | 281.9        | 282.9        | 328.5        | + 16.1                    |
| Dry goods.....                      | 141.8        | 161.9        | 197.5        | 244.5        | 264.7        | 240.4        | 246.0        | 249.4        | + 1.4                     |
| Fruits and vegetables...            | 131.2        | 262.4        | 291.2        | 274.7        | 237.2        | 263.0        | 271.6        | 288.0        | + 6.0                     |
| Groceries.....                      | 134.7        | 180.2        | 208.9        | 244.2        | 254.0        | 257.0        | 276.4        | 304.1        | + 10.0                    |
| Hardware.....                       | 165.2        | 212.0        | 277.4        | 325.0        | 359.7        | 374.9        | 404.5        | 455.7        | + 12.7                    |
| Tobacco and confection-<br>ery..... | 150.6        | 258.1        | 296.9        | 317.1        | 354.8        | 372.8        | 381.1        | 409.4        | + 7.4                     |
| <b>Composite Index.....</b>         | <b>142.0</b> | <b>205.4</b> | <b>244.0</b> | <b>272.0</b> | <b>283.2</b> | <b>291.3</b> | <b>307.2</b> | <b>347.1</b> | <b>+ 13.0</b>             |

*Operating Results of Wholesalers.*—Operating results of 10 wholesale trades show major profit and expense categories expressed as percentages of net sales. The trades surveyed are those dealing in the more important consumer commodities and comprise wholesalers proper, i.e., wholesalers who take title to the goods and perform warehousing and delivery functions. The main operating ratios are shown in the following table.

### *Operating Results of Selected Wholesale Trades, 1951*

| Kind of Business                         | Gross<br>Profit | Selling<br>Expense | Ware-<br>house<br>and<br>Delivery<br>Expense | General<br>and<br>Adminis-<br>trative<br>Expense | Net<br>Profit <sup>1</sup> | Stock<br>Turnover <sup>2</sup> |
|------------------------------------------|-----------------|--------------------|----------------------------------------------|--------------------------------------------------|----------------------------|--------------------------------|
|                                          | p.c.            | p.c.               | p.c.                                         | p.c.                                             | p.c.                       | No.                            |
| Grocery.....                             | 8.0             | 1.4                | 2.3                                          | 3.3                                              | 1.0                        | 10.1                           |
| Fruit and vegetable.....                 | 11.3            | 1.9                | 4.4                                          | 4.1                                              | 1.0                        | 39.1                           |
| Tobacco and confectionery..              | 7.6             | 2.1                | 1.5                                          | 2.7                                              | 1.3                        | 17.2                           |
| Dry goods.....                           | 16.9            | 5.0                | 2.2                                          | 6.7                                              | 3.1                        | 4.3                            |
| Piece goods.....                         | 15.2            | 4.5                | 1.9                                          | 7.4                                              | 1.4                        | 3.4                            |
| Footwear.....                            | 14.1            | 4.5                | 2.3                                          | 7.0                                              | 0.3                        | 4.3                            |
| Automotive parts and<br>accessories..... | 25.3            | 7.3                | 3.9                                          | 9.3                                              | 4.8                        | 4.5                            |
| Hardware.....                            | 20.5            | 4.0                | 2.8                                          | 7.0                                              | 6.7                        | 3.9                            |
| Plumbing and heating<br>supplies.....    | 17.8            | 3.0                | 2.4                                          | 6.6                                              | 5.8                        | 6.8                            |
| Drug.....                                | 13.4            | 2.2                | 2.7                                          | 6.1                                              | 2.4                        | 5.6                            |

<sup>1</sup> Before addition of miscellaneous income or deductions of miscellaneous expense and income tax. <sup>2</sup> Cost of goods sold divided by average of year beginning and ending inventories.



## Co-operative Associations

Membership in co-operative associations in Canada in 1951 was 1,416,429, reported by 2,768 associations doing business valued at \$1,016,550,971. Compared with 1950, the number of associations was fewer by 147 but the membership was larger by 78,540. The decrease of \$23,250,000 in the volume of business transacted as compared with 1950, the first decline since 1946, was mainly accounted for by co-operatives marketing grain and seed. The low quality of the grain crop affected average prices for grain and seed, a decline not offset appreciably by the production increase of 24 p.c. in 1950-51 over the total reported for 1949-50.

Sales of farm supplies through co-operatives increased in 1951 by almost \$4,000,000 to a total volume of \$210,000,000. Revenue reported by service co-operatives increased by \$1,500,000 to a total of \$9,250,000 and total business, both marketing and purchasing, of fishermen's co-operatives increased by \$2,000,000 to a total of \$18,800,000.

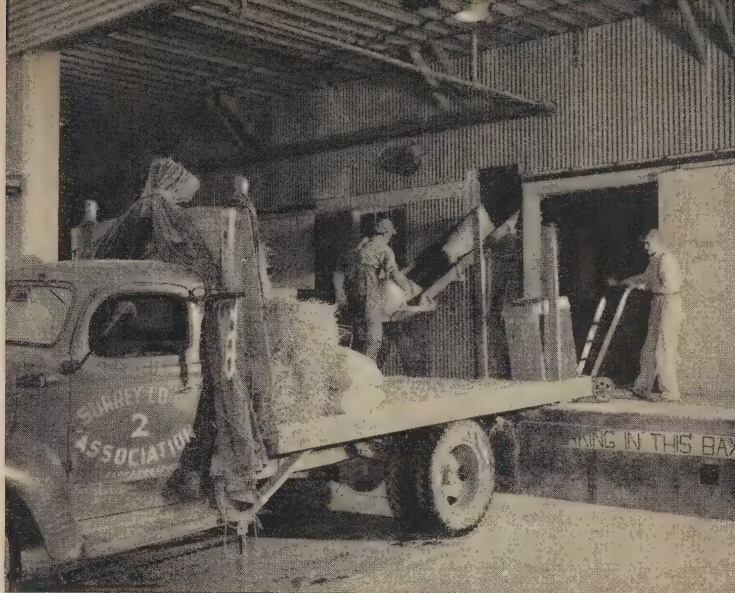
**Co-operative Marketing.**—The total value of farm products marketed by co-operatives in Canada during the crop year ended July 31, 1951, amounted to \$769,264,824. Decreases in sales volume were reported for all commodities with the exception of live stock, lumber and wood, wool, furs and maple products. The proportion of farm products marketed commercially in Canada by co-operatives is estimated to be 33.9 p.c. Percentages handled by co-operatives in the main commodity groups during 1951 were: dairy products 25.8, live stock 21.4, poultry and eggs 12.2, wool 87.5, grains 56.9, and fruits and vegetables 27.1.

**Co-operative Purchasing.**—Total sales of merchandise and supplies through co-operative associations in 1951 amounted to \$209,985,815, an increase of about 2 p.c. over the total reported in 1950. Main increases in sales were made in the merchandising of petroleum products and feed and fertilizer. Sales of machinery and equipment and clothing were less but all other groups of items handled by co-operatives reported increases.

**Co-operative Wholesaling.**—Every province, with the exception of Newfoundland, has one or more wholesale societies engaged in the co-operative purchase of farm supplies and consumer goods for redistribution to local co-operatives. Some of these wholesales also market agricultural products. The total volume of business transacted by such wholesales during 1950-51 was \$141,478,212 compared with \$128,455,066 reported in 1949-50. Main development in this field was made by Interprovincial Co-operatives Limited at Winnipeg, the federated wholesale owned by the provincials, which opened a coffee mill at Vancouver, B.C., and a canning factory at Beamsville, Ont.

**Co-operative Services.**—The technique of co-operation has been applied successfully to providing services in such fields as housing, rural electrification, hospital and medical care, transportation, storage and lodging. Total revenue reported by 324 such co-operatives in 1950-51 was \$9,300,000. Alberta and Quebec have large numbers of rural electrification co-operatives, while housing groups are numerous in Nova Scotia and Quebec. Ontario has about 40 co-operatives providing medical and hospital care. Membership in service co-operatives in 1951 was reported as 216,779.

Feed being delivered to a co-operative marketing warehouse. About 35 p.c. of all farm produce marketed commercially in Canada is handled by co-operative associations.



**Fishermen's Co-operatives.**—Fishermen's co-operatives exist in every province except Alberta. In 1951 there were 96 groups of this type comprising 15,412 members. Total value of fish and fish products marketed during that year was about \$15,500,000 and sales of fishermen's supplies, equipment, clothing, petroleum products and consumer goods were valued at \$3,300,000.

**Credit Unions.**—There were 3,121 credit unions holding provincial government charters at the end of 1941; their membership of 1,100,000 had accumulated over \$358,000,000 in savings. Loans to members during the year reached a total of \$125,000,000.

## Wholesale Prices

The general wholesale price index measures commodity price changes mainly at production and primary distribution levels. It includes over 600 price series, including price quotations ranging from those paid by primary producers for basic raw materials to prices paid by retailers for finished articles.\*

The upward movement in wholesale prices, which commenced with the sharp deterioration in the international situation in June 1950, moved the wholesale index to a new post-war peak level of 243.7 by July 1951. Since that date prices have fallen almost steadily to reach 221.2 by December 1952. Declines were general, although primary and secondary items recorded the sharpest losses. Certain commodities moved against the trend, notably, potatoes, newsprint, and iron and steel. Strength in the Canadian dollar was a contributing factor to lower prices for export and import items.

Canadian farm product prices at terminal markets moved substantially lower during 1952. From a post-war peak of 277.1 reached in July 1951, the composite index dropped to 222.3 by December 1952. As in previous years,

\* Detailed information concerning the construction of this index is given in D.B.S. Reference Paper No. 24, *Wholesale Price Indexes 1913-1950*.

lower indexes in the second half of 1952 reflected a drop in the initial prices to western producers for grains at the commencement of the crop year on Aug. 1. Live-stock prices were considerably lower in 1952 although some stability followed the establishment of support prices for beef and pork. These support prices were set in April 1952 following the United States embargo against Canadian live stock and meat due to the outbreak of foot-and-mouth disease.

**Monthly Index Numbers of General Wholesale Prices and Wholesale Prices of Canadian Farm Products, 1951 and 1952**

(1935-39 = 100)

| Year and Month | General Wholesale Prices | Canadian Farm Products | Year and Month | General Wholesale Prices | Canadian Farm Products |
|----------------|--------------------------|------------------------|----------------|--------------------------|------------------------|
| <b>1939</b>    |                          |                        | November.....  | 239·1                    | 273·4                  |
| August.....    | 95·6                     | 84·3                   | December.....  | 237·7                    | 275·0                  |
| <b>1951</b>    |                          |                        | <b>1952</b>    |                          |                        |
| January.....   | 232·5                    | 250·9                  | January.....   | 236·8                    | 271·5                  |
| February.....  | 238·6                    | 262·5                  | February.....  | 232·6                    | 259·6                  |
| March.....     | 241·9                    | 272·9                  | March.....     | 230·8                    | 256·7                  |
| April.....     | 242·4                    | 265·4                  | April.....     | 226·9                    | 253·8                  |
| May.....       | 241·9                    | 265·3                  | May.....       | 224·8                    | 252·7                  |
| June.....      | 243·0                    | 272·6                  | June.....      | 226·5                    | 257·9                  |
| July.....      | 243·7                    | 277·1                  | July.....      | 225·5                    | 252·8                  |
| August.....    | 241·4                    | 271·7                  | August.....    | 223·9                    | 236·2                  |
| September..... | 240·0                    | 268·8                  | September..... | 222·1                    | 225·5                  |
| October.....   | 239·6                    | 267·7                  | October.....   | 221·0                    | 221·3                  |
|                |                          |                        | November.....  | 221·9                    | 222·9                  |
|                |                          |                        | December.....  | 221·2                    | 222·3                  |



Farmers looking over the stock at a cattle sale.





*The Chateau Laurier Hotel, Ottawa, in winter, viewed from across the Plaza.*

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## Consumer Prices

In October 1952 the Dominion Bureau of Statistics issued a new series of Canadian index numbers of retail prices entitled the "Consumer Price Index". This index, which is on the base 1949 = 100, replaces the cost-of-living index as the official measurement of retail prices of goods and services. It is an entirely new series constructed from post-war expenditure patterns. Its purpose, however, is the same as that of the cost-of-living index, viz., it measures the average percentage change in retail prices of goods and services bought by a large and representative group of Canadian urban families. The change in title was made to clarify the point that the index is a measure of price change and is not affected by changes in standards of living.

The new index appeared for the first time in a special report *The Consumer Price Index, January 1949-August 1952*, which gives information on such aspects of the index as definition, family coverage, base period, as well as details of item content and weights. Methods of price collection and special techniques such as the incorporation of seasonal variation in food consumption and the measurement of home service costs are also explained.

The new index is based on goods and services purchased during the year ended Aug. 31, 1948, by 1,517 families, representing all Canadian urban

families with the following characteristics: (1) living in 27 Canadian cities with over 30,000 population (1941 census); (2) ranging in size from two adults to two adults with four children; (3) with annual incomes during the survey year ranging from \$1,650 to \$4,050.

To measure the influence of price change on the cost of goods and services purchased by such families, the consumer price index contains 224 items, nearly 40 p.c. more than the cost-of-living index. Additional items have been determined by a purely objective approach to the problem of measuring price movements of goods and services purchased by families of the type described. Thus, no attempt has been made to differentiate between "luxuries" and "necessities". This has led to the inclusion of additional items such as margarine, cake mix, chicken, lettuce, chocolate bars, fur coats, children's clothing, fuel oil, electric irons, lawnmowers, household help, phonograph records, and carbonated and alcoholic drinks. Included in the cost-of-living index but not given specific representation in the consumer price index are such items as rice, dried beans, prunes, rayon hosiery, coke, wool flannel, oilcloth, and cigars. These items have been omitted because, on average, families did not report purchasing them in significant amounts.

The consumer price index moved up to a peak of 118.2 (1949=100) by Jan. 2, 1952. Thereafter, prices receded spasmodically to lower the index to 116.0 by Oct. 1. Lower indexes were in evidence for all sub-groups except shelter and other commodities and services which advanced over January levels. Food registered the greatest change, the index dropping from a peak of 122.5 for November-December 1951 to 115.1 by October 1952.

### Consumer Price Index Numbers, 1949-52

(Av. 1949 = 100)

| Year and Month    | Food  | Shelter | Clothing | Household Operation | Other Commodities and Services | Total |
|-------------------|-------|---------|----------|---------------------|--------------------------------|-------|
| 1949.....         | 100.0 | 100.0   | 100.0    | 100.0               | 100.0                          | 100.0 |
| 1950.....         | 102.6 | 106.2   | 99.7     | 102.4               | 103.1                          | 102.9 |
| 1951.....         | 117.0 | 114.4   | 109.8    | 113.1               | 111.5                          | 113.7 |
| 1952.....         |       |         |          |                     |                                |       |
| 1951 January..... | 109.0 | 110.0   | 102.6    | 107.1               | 107.4                          | 107.7 |
| February.....     | 111.0 | 110.4   | 105.1    | 108.6               | 108.0                          | 109.1 |
| March.....        | 114.1 | 111.5   | 106.7    | 110.5               | 108.3                          | 110.8 |
| April.....        | 115.5 | 111.8   | 108.5    | 111.4               | 108.6                          | 111.7 |
| May.....          | 114.3 | 112.4   | 109.0    | 112.7               | 110.4                          | 112.2 |
| June.....         | 115.8 | 115.2   | 109.5    | 113.8               | 111.8                          | 113.7 |
| July.....         | 117.9 | 115.5   | 109.7    | 114.3               | 112.2                          | 114.6 |
| August.....       | 119.0 | 115.8   | 110.7    | 115.1               | 113.4                          | 115.5 |
| September.....    | 120.5 | 117.2   | 111.9    | 115.5               | 113.6                          | 116.5 |
| October.....      | 121.3 | 117.2   | 114.1    | 115.8               | 114.1                          | 117.1 |
| November.....     | 122.5 | 118.2   | 114.5    | 115.9               | 114.8                          | 117.9 |
| December.....     | 122.5 | 118.2   | 115.2    | 116.4               | 115.0                          | 118.1 |
| 1952 January..... | 122.4 | 118.3   | 114.9    | 116.4               | 115.5                          | 118.2 |
| February.....     | 120.8 | 118.3   | 113.5    | 116.3               | 115.8                          | 117.6 |
| March.....        | 117.6 | 119.1   | 112.9    | 116.9               | 116.4                          | 116.9 |
| April.....        | 117.2 | 119.4   | 112.5    | 116.8               | 116.6                          | 116.8 |
| May.....          | 115.5 | 119.6   | 112.3    | 116.2               | 115.6                          | 115.9 |
| June.....         | 115.7 | 120.4   | 111.8    | 115.9               | 115.7                          | 116.0 |
| July.....         | 116.0 | 120.6   | 111.7    | 115.9               | 115.6                          | 116.1 |
| August.....       | 115.7 | 120.6   | 111.6    | 115.8               | 115.8                          | 116.0 |
| September.....    | 115.8 | 121.2   | 110.9    | 116.0               | 115.8                          | 116.1 |
| October.....      | 115.1 | 121.5   | 109.9    | 116.2               | 116.4                          | 116.0 |
| November.....     | 115.7 | 121.4   | 109.8    | 115.9               | 116.6                          | 116.1 |
| December.....     | 114.1 | 122.2   | 109.7    | 116.1               | 116.6                          | 115.8 |





*Commercial centre of Canada's largest city, Montreal, Que.*





# Foreign Trade

IN 1951 and 1952 Canada's foreign trade was at a record peacetime level. Both exports and imports were greater in value and volume in 1951 than in earlier years, and the average prices at which transactions were conducted in that year were also higher. In 1952 export and import prices declined, although the volume of trade was even larger than in 1951. The increase in the volume of exports was greater than the decline in export prices, and the value of exports therefore set a new record in 1952. For imports, the 1951 peak value was not surpassed in 1952.

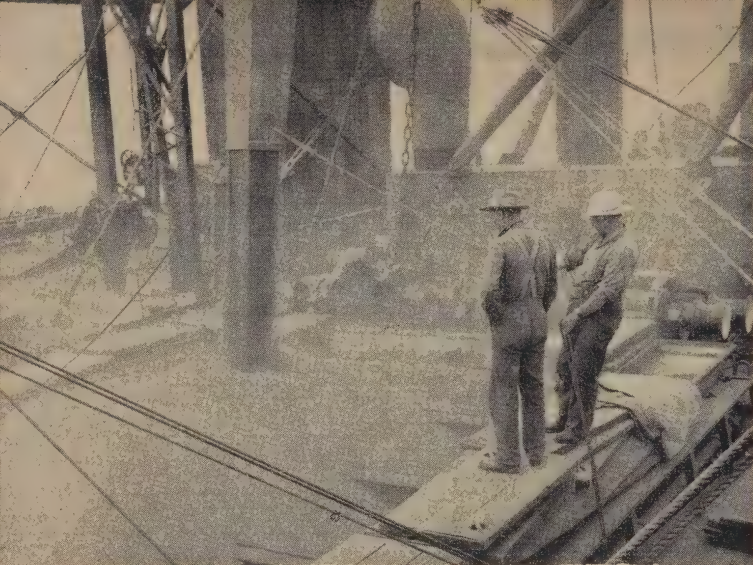
## Exports, Imports and Total Trade of Canada, 1946-52

(Millions of dollars)

| Period             | Exports          |                 |         | Imports | Total Trade | Balance of Trade |
|--------------------|------------------|-----------------|---------|---------|-------------|------------------|
|                    | Domestic Produce | Foreign Produce | Total   |         |             |                  |
| Calendar Year—     |                  |                 |         |         |             |                  |
| 1946.....          | 2,312.2          | 27.0            | 2,339.2 | 1,864.6 | 4,203.7     | +474.6           |
| 1947.....          | 2,774.9          | 36.9            | 2,811.8 | 2,573.9 | 5,385.7     | +237.8           |
| 1948.....          | 3,075.4          | 34.6            | 3,110.0 | 2,636.9 | 5,747.0     | +473.1           |
| 1949.....          | 2,993.0          | 29.5            | 3,022.5 | 2,761.2 | 5,783.7     | +261.2           |
| 1950.....          | 3,118.4          | 38.7            | 3,157.1 | 3,174.3 | 6,331.3     | — 17.2           |
| 1951.....          | 3,914.5          | 48.9            | 3,963.4 | 4,084.9 | 8,048.2     | —121.5           |
| January-September— |                  |                 |         |         |             |                  |
| 1951.....          | 2,784.6          | 33.6            | 2,818.2 | 3,142.0 | 5,960.2     | —323.8           |
| 1952.....          | 3,140.3          | 40.4            | 3,180.6 | 2,945.5 | 6,126.2     | +235.1           |

The value of world trade expressed in United States dollars was also higher in 1951 than in earlier years. Statistics compiled by the International Monetary Fund show that the value of the trade of the non-communist world increased by about 36 p.c. over the total recorded for 1950. Higher prices played an important part in establishing this record value, but the gain in volume was also substantial. Estimates prepared by the United Nations Statistical Office show that the average price of world exports was about 21 p.c. higher than in 1950 in terms of United States dollars, or about 17 p.c. higher in terms of Canadian dollars. The volume of world exports gained about 11 p.c. over the 1950 level. Canada's exports in 1951 were also 11 p.c. greater in volume than in 1950, but their average price rose only 13 p.c.

Canada has ranked among the world's leading trading countries throughout the post-war period, and in 1951 accounted for 5.2 p.c. of world trade as recorded by the International Monetary Fund. In value, Canada's trade was surpassed only by that of the United States, the United Kingdom and France, and the per capita value of Canada's trade was again greater than that of all other leading trading countries except Hong Kong and New Zealand. The increase in the value of Canada's trade from 1950 to 1951 was proportionately less than that of the trade of most of the other countries shown in the following table, due in part to the greater increases in price



Loading wheat for the United Kingdom at Lapointe Pier, Vancouver, B.C.

affecting the exports (and imports) of many other countries. External trade is an important determinant of Canadian prosperity; exports accounted for 23.0 p.c. and imports for 23.7 p.c. of the net national income in 1951.

### Leading Countries in World Trade, 1950 and 1951

Countries are ranked by total trade and total trade per capita in 1951.

NOTE.—Sources of data: Trade—International Monetary Fund. Population—United Nations Statistical Office.

| Country                                            | Exports f.o.b. |               | Imports c.i.f. |               | Total Trade    |                |
|----------------------------------------------------|----------------|---------------|----------------|---------------|----------------|----------------|
|                                                    | 1950           | 1951          | 1950           | 1951          | 1950           | 1951           |
| Value of Trade (Millions of United States Dollars) |                |               |                |               |                |                |
| United States.....                                 | 10,281         | 15,038        | 10,074         | 12,444        | 20,355         | 27,482         |
| United Kingdom.....                                | 6,334          | 7,580         | 7,397          | 10,954        | 13,731         | 18,534         |
| France.....                                        | 3,079          | 4,161         | 3,066          | 4,523         | 6,145          | 8,684          |
| <b>Canada.....</b>                                 | <b>3,097</b>   | <b>4,038</b>  | <b>3,200</b>   | <b>4,194</b>  | <b>6,297</b>   | <b>8,232</b>   |
| Germany, W.....                                    | 1,981          | 3,461         | 2,704          | 3,495         | 4,685          | 6,956          |
| Belgium and Luxembourg.....                        | 1,653          | 2,647         | 1,942          | 2,528         | 3,595          | 5,175          |
| Netherlands.....                                   | 1,414          | 1,978         | 2,063          | 2,567         | 3,477          | 4,545          |
| Australia.....                                     | 1,481          | 2,199         | 1,557          | 1,910         | 3,038          | 4,109          |
| Italy.....                                         | 1,208          | 1,644         | 1,483          | 2,166         | 2,691          | 3,813          |
| Brazil.....                                        | 1,346          | 1,757         | 1,098          | 2,011         | 2,444          | 3,768          |
| India.....                                         | 1,263          | 1,540         | 1,279          | 2,028         | 2,542          | 3,568          |
| Japan.....                                         | 820            | 1,355         | 974            | 1,995         | 1,794          | 3,350          |
| <b>World Total<sup>1</sup>.....</b>                | <b>56,563</b>  | <b>76,100</b> | <b>59,476</b>  | <b>81,486</b> | <b>116,039</b> | <b>157,586</b> |
| Trade Per Capita (United States Dollars)           |                |               |                |               |                |                |
| Hong Kong.....                                     | 291            | 387           | 295            | 425           | 585            | 813            |
| New Zealand.....                                   | 267            | 356           | 238            | 306           | 504            | 662            |
| <b>Canada.....</b>                                 | <b>224</b>     | <b>288</b>    | <b>231</b>     | <b>299</b>    | <b>455</b>     | <b>588</b>     |
| Belgium and Luxembourg.....                        | 185            | 295           | 217            | 282           | 402            | 576            |
| Malaya and Singapore.....                          | 210            | 311           | 152            | 244           | 362            | 554            |
| Switzerland.....                                   | 192            | 228           | 223            | 287           | 416            | 515            |
| Sweden.....                                        | 157            | 252           | 168            | 251           | 326            | 503            |
| Australia.....                                     | 181            | 261           | 190            | 227           | 371            | 487            |
| Norway.....                                        | 119            | 188           | 208            | 266           | 327            | 454            |
| Netherlands.....                                   | 140            | 193           | 204            | 250           | 344            | 443            |
| Venezuela.....                                     | 253            | 287           | 122            | 142           | 376            | 429            |
| Denmark.....                                       | 156            | 195           | 200            | 235           | 355            | 430            |

<sup>1</sup> Exclusive of China, U.S.S.R., and eastern European countries not reporting trade currently.



**Trade Trends in 1950-52.**—In the early months of 1950, Canada's foreign trade adapted itself to the new environment created by the general readjustment of exchange rates in September 1949. Adjustments to the commodity composition of trade were relatively small, since Canadians still had the same principal commodities to sell and still needed the same imported goods. Adjustments in the shares of various countries in exports and imports were more noticeable. Exports to the United States increased sharply, while those to overseas countries, especially the United Kingdom, the Commonwealth countries and Europe, fell off. Imports from the United States were more subject to competition from overseas goods whose prices had been decreased by devaluation, and the share of overseas countries in Canada's imports showed some increase. These adjustments were eased by the recovery of the United States economy from its 1949 recession and the consequent atmosphere of expanding markets and gently rising prices that prevailed in this period.

The outbreak of the Korean war in June 1950 disturbed the emerging pattern of peacetime trade. Demand for strategic raw materials was intensified as the non-communist countries rearmed. Production of goods increased, resulting in greater current consumption of raw materials, and in addition there was heavy inventory buying to facilitate greater production and to guard against possible shortages. The prices of many important commodities began to rise sharply, especially those of goods produced in southeast Asia and Australasia. From June to December 1950, import prices rose almost 8 p.c. and export prices almost 5 p.c. in spite of the insulating effects of the appreciation of the Canadian dollar after the exchange rate was unpegged in

Loading lumber aboard a United Kingdom freighter at Saint John, N.B. The United States takes about 70 p.c. of Canada's exported lumber, most of the remainder going to the United Kingdom, the British West Indies, France, The Netherlands and South Africa.



October. From December 1950 to June 1951, there was a further rise of more than 11 p.c. in import prices and almost 10 p.c. in export prices.

The adverse movement in the terms of trade resulting from the slower advance of export than import prices contributed to the heavy import balance on trade recorded in this period. More important was the greater increase in import volume than export volume. Because Canada's demand for most commodities is a relatively small fraction of total world demand, and because Canada's financial position was strong throughout the period, the rapid growth of imports was not severely restricted by foreign productive capacity, by exchange problems, or even by price. On the other hand, the expansion of most exports at that time was limited owing to the large proportion of Canadian production of many commodities already consumed abroad, and also to growing Canadian demand for Canadian goods.

In the second half of 1951 this picture began to change. Demand for imports levelled off as inventory growth ceased and fears of war-born shortages were dispelled. In the consumer-goods field, the anti-inflationary credit controls imposed in the 1951 Federal Budget lowered demand for imports of some goods and for materials and components with which to produce them. The same controls reduced the Canadian market available to Canadian producers of these goods, thus increasing exportable supplies. The steady growth of Canadian productive capacity, stimulated by high prices, permitted greater exports of many important industrial materials. Good grain crops, together with poor crops in many other producing and consuming countries, also contributed heavily to increased exports.

Price trends worked with volume trends to create an export balance on trade in this period. Spot prices of many important import commodities began to decline in February 1951 and, after June 1951, Canada's import price index moved downward. Export prices continued to advance until November, and their subsequent decline until the middle of 1952 was due more to the appreciation of the Canadian dollar than to lower world prices for these commodities. The terms of trade became strongly favourable in this period.

### *Summary Trade Statistics, by Quarters, 1950-52*

| Period         | Value of Trade<br>\$'000,000 |         |                  | Price Indexes<br>(1948=100) |         | Volume Indexes<br>(1948=100) |         |
|----------------|------------------------------|---------|------------------|-----------------------------|---------|------------------------------|---------|
|                | Total<br>Exports             | Imports | Trade<br>Balance | Domestic<br>Exports         | Imports | Domestic<br>Exports          | Imports |
| <b>1950</b>    |                              |         |                  |                             |         |                              |         |
| Jan.-Mar.....  | 657.0                        | 649.5   | + 7.5            | 104.7                       | 107.8   | 80.6                         | 91.4    |
| Apr.-June..... | 791.1                        | 803.6   | - 12.5           | 106.3                       | 108.8   | 95.6                         | 112.2   |
| July-Sept..... | 800.1                        | 806.4   | - 6.3            | 110.2                       | 110.8   | 93.2                         | 110.4   |
| Oct.-Dec.....  | 908.9                        | 914.8   | - 5.9            | 111.8                       | 114.8   | 104.5                        | 121.1   |
| <b>1951</b>    |                              |         |                  |                             |         |                              |         |
| Jan.-Mar.....  | 819.6                        | 943.9   | -124.2           | 117.5                       | 122.4   | 89.5                         | 117.1   |
| Apr.-June..... | 943.0                        | 1,158.5 | -215.5           | 122.1                       | 129.1   | 99.2                         | 136.1   |
| July-Sept..... | 1,055.6                      | 1,039.6 | + 16.0           | 124.8                       | 127.7   | 108.8                        | 123.3   |
| Oct.-Dec.....  | 1,145.2                      | 942.9   | +202.3           | 125.5                       | 122.1   | 117.1                        | 116.8   |
| <b>1952</b>    |                              |         |                  |                             |         |                              |         |
| Jan.-Mar.....  | 1,000.0                      | 916.1   | + 83.9           | 124.4                       | 117.4   | 103.2                        | 118.0   |
| Apr.-June..... | 1,114.7                      | 1,034.2 | + 80.5           | 121.3                       | 110.9   | 118.2                        | 140.9   |
| July-Sept..... | 1,065.9                      | 995.2   | + 70.7           | 120.3                       | 107.2   | 114.1                        | 140.5   |

Between the early months of 1950 and the middle of 1952 there was also a full cycle of change in the direction of Canada's trade. Before the outbreak



*Holstein calves in paddock ready for shipment to Trieste, Italy. These calves were from five to twelve months old and were obtained from about 300 pure-bred Holstein herds in Ontario and Quebec.*

of the Korean war the share of the United States in Canada's exports was increasing while that of overseas countries was declining, and the reverse tendencies were developing in imports. The war accentuated the latter tendency, imports from Commonwealth countries expanding especially sharply, and at first did not disturb the new export pattern. In the last half of 1950 and the first half of 1951 the balance of Canada's trade with most principal countries and trading areas was better than in any other post-war period.

In 1951 these changes began to reverse. The more moderate expansion of Canadian prices than those of most other countries increased the attractiveness of Canadian goods to overseas buyers. Since many overseas countries had improved their exchange position in 1950 they were able to respond with greater purchases in Canada. Price ceilings in the United States market also tended to divert Canadian exports overseas. After the middle of the year exports to the United States were relatively stable at a high level, and the further expansion in exports, especially those of grains, was almost entirely to overseas markets. Imports from the United States remained at a high level and even increased somewhat in volume, but the value of imports from overseas countries was reduced by rapidly falling prices, by lower inventory buying, and by a drop in consumer demand for some goods. By the first half of 1952 the share of the United States in exports was little greater than it had been in 1949, and that country's share in imports had increased even above the 1949 level. The bilateral imbalance of Canada's trade was again very pronounced, although it remained proportionately less than in 1949.

During the third quarter of 1952 the decline in import prices moderated and export prices were almost stable. Both exports and imports remained much greater in volume than in any corresponding post-war quarter. Several problems faced Canada in the sphere of international trade, notably the renewed balance of payments difficulties of the sterling area and the large trade



deficit with the United States. Price adjustments by overseas competitors stiffened competition for Canadian exporters of many goods, and better crops in other countries suggested greater competition in grain sales. However, these problems seemed less formidable than those in most earlier post-war years.

### *Distribution of Canadian Trade by Leading Countries and Trading Areas, 1949-52*

| Item and Period                     | United States | United Kingdom | Europe | Commonwealth and Ireland | Latin America | Others |
|-------------------------------------|---------------|----------------|--------|--------------------------|---------------|--------|
|                                     | p.c.          | p.c.           | p.c.   | p.c.                     | p.c.          | p.c.   |
| Total Exports—                      |               |                |        |                          |               |        |
| Calendar year.....1949 <sup>1</sup> | 50.4          | 23.5           | 7.6    | 10.0                     | 4.2           | 4.0    |
| 1950                                | 65.0          | 15.0           | 6.1    | 6.3                      | 4.6           | 3.0    |
| 1951                                | 58.9          | 16.0           | 8.7    | 6.7                      | 5.3           | 4.4    |
| Jan.-Sept.....1952                  | 53.5          | 18.2           | 10.3   | 7.1                      | 6.4           | 4.5    |
| Imports—                            |               |                |        |                          |               |        |
| Calendar year.....1949 <sup>1</sup> | 70.7          | 11.1           | 3.1    | 6.7                      | 7.0           | 1.4    |
| 1950                                | 67.1          | 12.7           | 3.3    | 7.6                      | 6.7           | 2.6    |
| 1951                                | 68.9          | 10.3           | 4.3    | 7.5                      | 6.7           | 2.3    |
| Jan.-Sept.....1952                  | 73.8          | 8.8            | 3.7    | 4.8                      | 7.1           | 1.8    |
| Total Trade—                        |               |                |        |                          |               |        |
| Calendar year.....1949 <sup>1</sup> | 60.1          | 17.6           | 5.4    | 8.4                      | 5.5           | 2.8    |
| 1950                                | 66.0          | 13.8           | 4.7    | 7.0                      | 5.7           | 2.8    |
| 1951                                | 64.0          | 13.1           | 6.5    | 7.1                      | 6.0           | 3.3    |
| Jan.-Sept.....1952                  | 63.2          | 13.7           | 7.1    | 6.0                      | 6.8           | 3.2    |

<sup>1</sup> Excluding Newfoundland. In the first three months of 1949 Newfoundland accounted for 0.32 p.c. of the year's exports, 0.03 p.c. of imports, and 0.18 p.c. of total trade.

**Trade Policy.**—In the 1950-52 period, the Government continued its efforts to reduce world trade barriers. The Torquay Conference in 1950-51 was the principal occasion for giving and granting tariff reductions but, in addition, bilateral negotiations were conducted with some other countries. Efforts were made to persuade other governments to reduce non-tariff restrictions, but almost the only achievement here was some liberalization of the trade controls of the British West Indies. Payment problems sustain quantitative restrictions in some countries, protectionism in others. For its part, the Canadian Government abolished the few remaining trade controls devised to deal with the war and post-war emergencies: in October 1950 the fixed exchange rate was abandoned; at the end of 1950 the last of the emergency exchange conservation controls were abolished; and in December 1951 foreign exchange control was ended.

Canada still enforces a few trade controls, but these are of a special and temporary nature. During the defence emergency, exports of certain strategically important materials are subject to control for security reasons. Canada has attempted to integrate her security restrictions with those of her allies to minimize interference with trade. The discovery of foot-and-mouth disease in Canada in February 1952 caused the United States to ban imports of Canadian live stock and meats. The Canadian Government therefore imposed import controls on meats to preserve the Canadian market for Canadian producers so long as export outlets were restricted. The Government also negotiated an agreement with the United Kingdom and New Zealand whereby Canadian beef replaced New Zealand beef on the British market while the

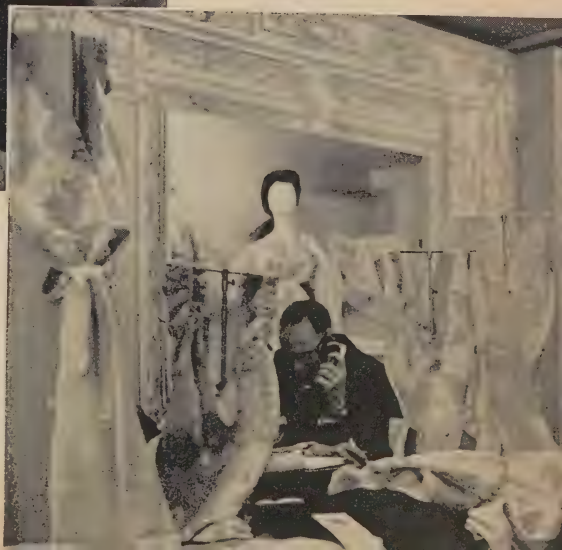
The Canadian International Trade Fair held in June 1952 was the fifth annual Fair of its kind. Nearly 25,000 business persons came to see the 1,300 exhibits representing the goods of many countries. However, the success of the Fair is not measured by attendance, but by the amount of business transacted.



▲  
A display of textiles, plastics, lubricants, fibres and other products, all emanating from Canadian chemical plants.

Machine tools from Germany. Actual demonstration of machinery and plant equipment is one of the features making the Trade Fair valuable to manufacturers.

►  
Lingerie from France. Although not a large item in the economy, high-quality, luxury textiles have a definite and active market in Canada.



New Zealand product went to the United States. This resulted in the first substantial shipments of Canadian beef to the United Kingdom since 1948.

**Commodity Exports and Imports.**—Exports of most important Canadian commodities were greater in 1951 and 1952 than in earlier years. The chief determinant of the rate of increase in the volume of most exports was the rate of growth of Canadian production, although some irregularities were caused by temporary market disturbances. Foreign demand for Canadian goods was generally strong throughout the post-war period. High exports together with heavy domestic investment played important roles in maintaining employment in primary and secondary industry and in keeping agriculture prosperous.

Several commodities showed particularly marked gains. Large Canadian crops in 1951 and 1952 permitted heavy exports of grains, especially of wheat. Exports of wood-pulp increased sharply in 1951 due to greater Canadian production and to prices below those of principal foreign competitors. In that year Canada displaced Sweden as the world's largest exporter of wood-pulp. Exports of automobiles and trucks were high during the last half of 1951 and the first half of 1952 due to the restrictive effect of credit controls on the home market. And in 1952 there were heavy deliveries of aircraft, particularly to the United States defence authorities. There was some softening of export markets in 1952 due to more intense foreign competition and to declines in demand for some goods. Export prices declined somewhat. Wood products, especially wood-pulp, were affected by competition. Exports of cattle and beef to the United States were eliminated after the discovery of foot-and-mouth disease, and beef sales in the British market did not make up for this loss. The volume of sales of most commodities remained high.

### **Domestic Exports to Leading Countries, 1948-52**

NOTE.—Countries ranked by value of exports in 1951.

| Country                     | Calendar Year |           |           |           | January-September |           |
|-----------------------------|---------------|-----------|-----------|-----------|-------------------|-----------|
|                             | 1948          | 1949      | 1950      | 1951      | 1951              | 1952      |
|                             | \$'000        | \$'000    | \$'000    | \$'000    | \$'000            | \$'000    |
| United States.....          | 1,500,987     | 1,503,459 | 2,020,988 | 2,297,675 | 1,691,341         | 1,669,629 |
| United Kingdom....          | 686,914       | 704,956   | 469,910   | 631,461   | 446,369           | 576,289   |
| Belgium and Luxembourg..... | 33,035        | 56,525    | 66,351    | 94,457    | 59,108            | 71,252    |
| Japan.....                  | 8,001         | 5,860     | 20,533    | 72,976    | 51,052            | 63,973    |
| Brazil.....                 | 28,601        | 17,259    | 15,806    | 53,684    | 25,859            | 58,552    |
| Union of South Africa.....  | 83,248        | 77,713    | 42,561    | 52,736    | 39,501            | 41,074    |
| Australia.....              | 38,257        | 35,363    | 35,446    | 49,079    | 31,956            | 34,201    |
| Italy.....                  | 32,379        | 12,567    | 15,476    | 48,763    | 39,345            | 38,898    |
| France.....                 | 92,963        | 36,004    | 18,403    | 46,538    | 29,873            | 39,074    |
| Germany.....                | 13,214        | 23,451    | 8,873     | 37,028    | 18,589            | 59,393    |
| India.....                  | 33,698        | 72,551    | 31,520    | 35,737    | 26,277            | 49,709    |
| Norway.....                 | 23,429        | 21,736    | 18,924    | 32,198    | 21,213            | 29,897    |
| Mexico.....                 | 15,045        | 15,411    | 17,624    | 29,880    | 20,638            | 28,310    |
| Venezuela.....              | 16,935        | 27,689    | 25,457    | 26,982    | 19,437            | 28,123    |
| The Netherlands.....        | 43,684        | 13,759    | 8,617     | 26,191    | 17,628            | 26,545    |
| Switzerland.....            | 19,389        | 32,281    | 26,435    | 25,345    | 15,625            | 15,982    |
| New Zealand.....            | 18,375        | 14,489    | 10,983    | 21,757    | 11,595            | 15,744    |
| Ireland.....                | 9,257         | 9,052     | 13,321    | 20,921    | 14,349            | 16,792    |
| Cuba.....                   | 10,987        | 14,391    | 18,005    | 20,424    | 15,328            | 18,536    |
| Philippines.....            | 9,810         | 13,983    | 10,829    | 15,598    | 10,866            | 12,471    |
| Chile.....                  | 4,495         | 3,633     | 6,864     | 13,751    | 5,458             | 6,995     |
| Colombia.....               | 8,406         | 8,012     | 14,806    | 12,311    | 8,948             | 10,372    |
| Sweden.....                 | 7,207         | 5,516     | 4,250     | 12,125    | 4,878             | 9,530     |
| Hong Kong.....              | 8,256         | 10,099    | 8,004     | 12,033    | 8,355             | 6,992     |
| Israel.....                 | 5,036         | 12,709    | 12,126    | 11,816    | 8,388             | 9,404     |



*A large portion of the china and pottery sold in Canada is imported from the United Kingdom and the United States.*



Imports also increased in 1951 and 1952. Gains in both price and volume were general in 1951, and although prices declined the volume of most imports remained high in 1952. Imports of wool, tin and rubber were particularly affected by rising prices in 1950 and early 1951, and by falling prices thereafter. Imports of most textiles were influenced by lower demand in 1952 as well as by lower prices. But aside from textiles and some materials the volume of imports remained high in 1952 and in many cases increased. Lower prices, accentuated by the appreciation of the Canadian dollar, were responsible for most value declines. The trend towards lower imports of fuels continued. As Canadian oil production and refinery capacity have expanded, the need for imported crude oil and petroleum products has become relatively less. In addition, oil is tending to displace coal in many uses. Coal, petroleum and petroleum products accounted for almost 19 p.c. of imports in 1948, for only



*From Lion's Gate Bridge, the Chief Signalman checks a vessel arriving in Vancouver harbour.*

about 15 p.c. in 1949 and 1950, and for about 13 p.c. in 1951. In the first nine months of 1952 their share in Canada's imports was further reduced to 12 p.c.

### Imports from Leading Countries, 1948-52

NOTE.—Countries ranked by value of imports in 1951.

| Country                          | Calendar Year |           |           |           | January-September |           |
|----------------------------------|---------------|-----------|-----------|-----------|-------------------|-----------|
|                                  | 1948          | 1949      | 1950      | 1951      | 1951              | 1952      |
|                                  | \$'000        | \$'000    | \$'000    | \$'000    | \$'000            | \$'000    |
| United States.....               | 1,805,763     | 1,951,860 | 2,130,476 | 2,812,927 | 2,146,910         | 2,172,317 |
| United Kingdom....               | 299,502       | 307,450   | 404,213   | 420,985   | 335,515           | 259,392   |
| Venezuela.....                   | 94,758        | 91,697    | 87,264    | 136,718   | 98,852            | 98,853    |
| Federation of Malaya             | 21,878        | 16,187    | 28,852    | 57,980    | 47,848            | 19,904    |
| Australia.....                   | 27,415        | 27,429    | 32,803    | 46,228    | 40,064            | 13,432    |
| Brazil.....                      | 20,559        | 21,163    | 28,178    | 40,627    | 29,079            | 26,958    |
| India.....                       | 33,400        | 26,233    | 37,262    | 40,217    | 33,307            | 19,401    |
| Belgium and Luxem-<br>bourg..... | 13,661        | 19,022    | 22,795    | 39,095    | 29,226            | 25,463    |
| Germany.....                     | 1,729         | 7,134     | 11,026    | 30,936    | 22,492            | 16,152    |
| New Zealand.....                 | 11,603        | 8,910     | 11,855    | 30,107    | 26,744            | 13,128    |
| British Guiana.....              | 15,380        | 22,355    | 21,735    | 25,025    | 14,916            | 15,685    |
| France.....                      | 12,648        | 13,309    | 14,669    | 23,974    | 18,299            | 13,967    |
| Arabia.....                      | 1             | 12,127    | 28,115    | 22,659    | 18,748            | 7,019     |
| Jamaica.....                     | 9,557         | 16,577    | 19,080    | 18,041    | 17,147            | 8,543     |
| Mexico.....                      | 27,258        | 25,494    | 22,974    | 18,013    | 14,266            | 18,762    |
| Switzerland.....                 | 7,444         | 10,902    | 14,464    | 16,398    | 11,994            | 11,168    |
| Ceylon.....                      | 11,182        | 11,635    | 17,604    | 16,396    | 13,415            | 9,315     |
| Syria and Lebanon..              | 28            | 429       | 62        | 16,381    | 13,511            | 10,281    |
| Trinidad and Tobago              | 9,027         | 14,575    | 15,205    | 15,082    | 13,458            | 8,518     |
| Italy.....                       | 6,981         | 9,048     | 9,373     | 14,217    | 10,575            | 7,866     |
| The Netherlands...               | 5,831         | 6,688     | 8,896     | 14,010    | 10,396            | 11,492    |
| Argentina.....                   | 5,746         | 3,324     | 10,913    | 13,955    | 12,482            | 2,755     |
| Barbados.....                    | 6,387         | 7,080     | 10,057    | 13,409    | 12,148            | 7,237     |
| Colombia.....                    | 8,668         | 12,588    | 13,342    | 13,063    | 8,867             | 12,916    |
| Japan.....                       | 3,144         | 5,551     | 12,087    | 12,577    | 9,150             | 9,116     |

<sup>1</sup> Not listed separately.

### Principal Domestic Exports, 1948-52

NOTE.—Commodities ranked by value of exports in 1951.

| Commodity                                                              | Calendar Year |         |         |         | January-September |         |
|------------------------------------------------------------------------|---------------|---------|---------|---------|-------------------|---------|
|                                                                        | 1948          | 1949    | 1950    | 1951    | 1951              | 1952    |
|                                                                        | \$'000        | \$'000  | \$'000  | \$'000  | \$'000            | \$'000  |
| Newsprint paper.....                                                   | 383,123       | 433,882 | 485,746 | 536,372 | 395,284           | 436,755 |
| Wheat.....                                                             | 243,023       | 435,158 | 325,614 | 441,043 | 281,367           | 438,567 |
| Wood-pulp.....                                                         | 211,564       | 170,675 | 208,556 | 365,133 | 264,808           | 229,006 |
| Planks and boards.....                                                 | 196,023       | 160,420 | 290,847 | 312,198 | 233,651           | 222,568 |
| Nickel.....                                                            | 73,802        | 92,324  | 105,300 | 136,689 | 96,786            | 117,500 |
| Aluminum, primary and<br>semi-fabricated.....                          | 92,737        | 91,032  | 103,206 | 120,853 | 94,238            | 104,904 |
| Wheat flour.....                                                       | 125,151       | 97,693  | 93,839  | 113,854 | 90,078            | 84,563  |
| Farm implements and mach-<br>inery (except tractors) and<br>parts..... | 73,760        | 84,127  | 78,512  | 96,873  | 76,351            | 78,052  |
| Zinc, primary and semi-<br>fabricated.....                             | 42,337        | 55,700  | 58,710  | 83,669  | 57,560            | 76,988  |
| Copper, primary and semi-<br>fabricated.....                           | 75,206        | 84,052  | 82,990  | 81,691  | 56,540            | 76,032  |
| Asbestos, unmanufactured..                                             | 41,399        | 36,934  | 62,752  | 80,333  | 60,744            | 63,697  |
| Pulpwood.....                                                          | 43,573        | 31,317  | 34,768  | 68,103  | 47,334            | 47,893  |
| Barley.....                                                            | 26,947        | 25,472  | 23,442  | 58,822  | 25,662            | 75,385  |
| Whisky.....                                                            | 26,957        | 32,703  | 41,682  | 54,039  | 37,277            | 33,819  |
| Oats.....                                                              | 22,560        | 18,533  | 16,571  | 53,899  | 39,575            | 44,427  |
| Fish, fresh and frozen.....                                            | 35,263        | 34,752  | 49,711  | 53,363  | 38,136            | 39,913  |
| Beef and veal, fresh.....                                              | 36,594        | 30,629  | 34,219  | 50,965  | 43,167            | 21,497  |
| Lead, primary and semi-<br>fabricated.....                             | 34,322        | 41,886  | 38,105  | 45,290  | 30,977            | 37,957  |

## Principal Domestic Exports, 1948-52—concluded

| Commodity                                | Calendar Year |        |        |        | January-September |        |
|------------------------------------------|---------------|--------|--------|--------|-------------------|--------|
|                                          | 1948          | 1949   | 1950   | 1951   | 1951              | 1952   |
|                                          | \$'000        | \$'000 | \$'000 | \$'000 | \$'000            | \$'000 |
| Cattle, chiefly for beef.....            | 47,226        | 46,146 | 61,686 | 44,314 | 35,614            | 1,584  |
| Machinery (non-farm) and parts.....      | 40,539        | 31,840 | 25,644 | 40,271 | 26,480            | 35,003 |
| Automobiles, passenger.....              | 20,763        | 15,883 | 19,365 | 38,490 | 22,867            | 36,664 |
| Fertilizers, chemical.....               | 36,374        | 39,385 | 38,874 | 35,734 | 27,254            | 31,766 |
| Ferro-alloys.....                        | 24,057        | 19,182 | 17,075 | 31,347 | 22,392            | 22,726 |
| Platinum metals and scrap.....           | 16,832        | 18,046 | 21,215 | 30,359 | 23,687            | 23,647 |
| Fur skins, undressed.....                | 23,262        | 22,533 | 23,792 | 28,316 | 23,441            | 17,247 |
| Automobiles, freight.....                | 18,841        | 12,168 | 8,827  | 24,873 | 9,320             | 38,869 |
| Aircraft and parts (except engines)..... | 11,290        | 24,935 | 4,383  | 7,524  | 5,030             | 30,835 |

## Principal Imports, 1948-52

NOTE.—Commodities ranked by value of imports in 1951.

| Commodity                                                      | Calendar Year |         |         |         | January-September |         |
|----------------------------------------------------------------|---------------|---------|---------|---------|-------------------|---------|
|                                                                | 1948          | 1949    | 1950    | 1951    | 1951              | 1952    |
|                                                                | \$'000        | \$'000  | \$'000  | \$'000  | \$'000            | \$'000  |
| Machinery (non-farm) and parts.....                            | 217,090       | 216,316 | 226,249 | 328,741 | 248,213           | 266,824 |
| Petroleum, crude and partly refined.....                       | 197,048       | 189,396 | 203,964 | 233,148 | 176,735           | 156,509 |
| Automobile parts (except engines).....                         | 101,261       | 117,748 | 158,405 | 195,177 | 154,585           | 143,841 |
| Rolling-mill products.....                                     | 83,929        | 98,093  | 93,639  | 173,127 | 125,858           | 110,443 |
| Tractors and parts.....                                        | 88,670        | 118,506 | 108,319 | 125,562 | 97,176            | 95,864  |
| Electrical apparatus, <i>n.o.p.</i> .....                      | 62,127        | 69,802  | 82,585  | 120,101 | 91,183            | 96,994  |
| Coal, bituminous.....                                          | 127,673       | 93,455  | 118,788 | 115,275 | 85,606            | 75,411  |
| Cotton, raw.....                                               | 55,546        | 65,676  | 88,461  | 94,315  | 70,965            | 44,913  |
| Engines, internal combustion, and parts.....                   | 43,031        | 45,610  | 47,068  | 80,314  | 56,268            | 101,479 |
| Sugar, unrefined.....                                          | 63,061        | 66,126  | 77,208  | 77,100  | 61,207            | 40,769  |
| Farm implements and machinery (except tractors) and parts..... | 51,325        | 58,706  | 53,322  | 69,529  | 58,195            | 65,529  |
| Rubber, crude and semi-fabricated.....                         | 20,878        | 17,662  | 34,361  | 64,973  | 56,409            | 22,774  |
| Fuel oils.....                                                 | 33,066        | 18,134  | 45,909  | 58,389  | 44,268            | 45,197  |
| Automobiles, passenger.....                                    | 21,428        | 38,970  | 75,330  | 56,632  | 54,619            | 38,991  |
| Cotton fabrics.....                                            | 52,815        | 52,666  | 45,901  | 54,984  | 45,843            | 37,902  |
| Wool, raw.....                                                 | 23,636        | 18,849  | 26,806  | 54,361  | 51,136            | 14,360  |
| Coal, anthracite.....                                          | 56,292        | 45,598  | 54,265  | 51,238  | 34,598            | 34,505  |
| Coffee, green.....                                             | 23,426        | 28,584  | 41,664  | 48,438  | 35,239            | 37,440  |
| Tourist purchases.....                                         | 316           | 28,847  | 33,090  | 47,071  | 32,947            | 46,311  |
| Principal chemicals (except acids) <i>n.o.p.</i> .....         | 28,018        | 31,576  | 37,161  | 43,960  | 32,777            | 37,214  |
| Pipes, tubes and fittings.....                                 | 18,598        | 28,145  | 35,394  | 43,183  | 31,990            | 39,512  |
| Aircraft and parts (except engines).....                       | 7,754         | 13,256  | 10,942  | 41,438  | 24,294            | 70,709  |
| Wool noils and tops.....                                       | 23,946        | 18,193  | 28,178  | 39,495  | 36,339            | 7,753   |
| Wool fabrics.....                                              | 42,648        | 41,747  | 31,719  | 38,567  | 32,395            | 23,635  |
| Vegetable oils (except essential oils).....                    | 18,008        | 20,550  | 31,162  | 35,025  | 31,399            | 14,512  |

## The Canadian Balance of International Payments

Canada's commercial and financial transactions with other countries are reflected in statements of the Canadian balance of international payments. These statements include exchanges of services and international movements of capital as well as foreign trade in merchandise. Consequently, the effects



of economic changes in countries throughout the world as well as in Canada tend to influence the balance of payments as it is a measure of Canada's full surplus or deficit with other countries.

During recent years wide fluctuations occurred in Canada's current account. There were current account surpluses in 1948 and 1949 and again in 1952, but in the years 1950 and 1951 current deficits appeared for the first time since the early 1930's.

During the same years the unbalance in trade with some individual countries and regions was greatly reduced. The change was most accentuated in 1950 when the unbalance in trade was unprecedentedly small, as the result of a falling-off in the export balance to the United Kingdom and overseas countries and a contraction in the import balance from the United States. But in 1951, and even more in 1952, there was a return to enlarged export balances with overseas countries and a substantial import balance with the United States, though the latter was not as great as the rise in export balance. This was a leading reason for the growth of the export balance with all countries and the resulting current account surplus in 1952.

The great fluctuations that occurred in the current account are illustrated when 1948 is compared with 1951. The transition between these two years was from a current surplus of \$451,000,000 in the former year to a current deficit of \$522,000,000 in 1951. There was a swing on merchandise account from an export balance of \$432,000,000 in the former year to an import balance of \$153,000,000 in 1951, the result of a greater rise in the value of imports than of exports. The greater rise in the volume of imports and some deterioration in terms of trade, due to a greater increase in import prices than in export prices, led to the change in the balance of merchandise account. At the same time, there was a sharp change in the balance on account of other current transactions—from a credit of \$19,000,000 in 1948 to a debit of \$369,000,000 in 1951—owing to a number of factors. In the case of both international travel expenditures and the freight and shipping item, the large credit balances earned in 1948 had disappeared in 1951. In addition, there was a growth in the deficits on income account and from miscellaneous current transactions, and contractions in the credit balance from inheritances and migrants funds, and in the value of gold available for export.

The surplus in 1948 was partly owing to the effects of the emergency exchange conservation measures introduced at the end of 1947 to restrict expenditures of United States dollars following the rapid loss in official reserves in that year. In the same year there was a sharp rise in Canadian exports to the United States as restrictions on exports to that country were removed at a time when supplies available for shipment to that country were improving. By 1951, the emergency measures had all been withdrawn and Canadian expenditures abroad again increased under the stimulus in Canada of high levels of economic activity, of heavy investment and of the rise in inventories. Consequently, the rise between 1948 and 1951 in current expenditures by Canada was much greater than the rise in current receipts.

The transition to a current surplus first appeared in the closing months of 1951 due to the reappearance of an export balance from merchandise trade. The export balance of 1952 was larger than the deficit from all other current transactions, which was caused by an adverse trend on travel account and in the value of gold, and by larger expenditures abroad on defence activities.

Favourable trends were recorded in the balance on freight and shipping account and on income account, although the latter continued to be a large contributor of debits.

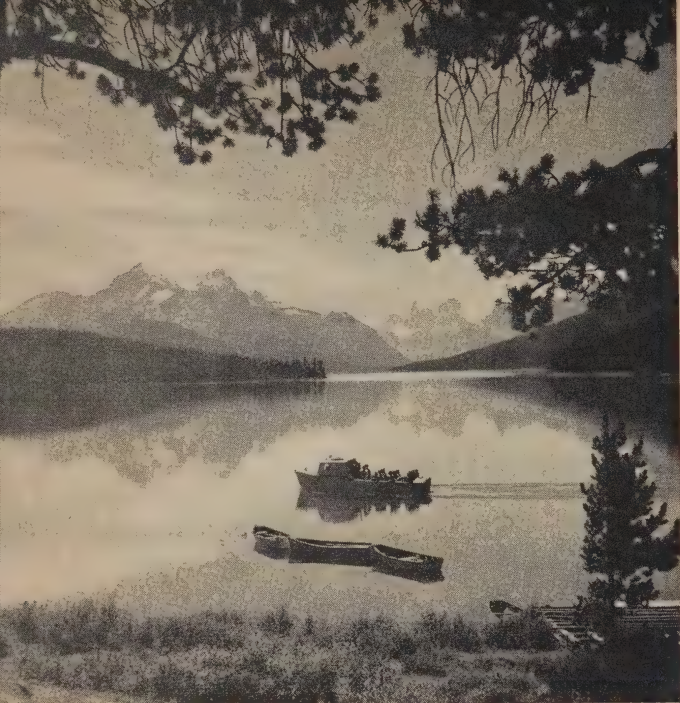
Movements of capital into Canada were substantial during the three years 1950 to 1952. The predominant movements were inward into Canada from the United States in 1950 and 1951, while in 1952 movements were more diverse and the net movement was outwards. A feature of the inflows, which were at a peak in the summer of 1950, was the acquisition of domestic bonds of the Government of Canada by residents of the United States. Inflows of capital for direct investments were substantial in 1950, and continued to be heavy in the two following years, particularly for the financing of Canadian petroleum and other mineral developments by United States companies. Another important type of inflow was borrowing from the United States through sales of new issues of securities, a source chiefly employed by provincial and municipal governments and corporations. While retirements of Canadian securities were also heavier in the earlier part of the period, new issues exceeded retirements by a wide margin in both 1951 and 1952. In 1952 a prominent feature of capital movements was the liquidation of holdings of outstanding Canadian bonds by residents of the United States, continuation of a trend in evidence towards the end of 1951. At the same time, capital continued to come into Canada for the acquisition of stocks of Canadian companies. Short-term movements of capital were particularly heavy in the years from 1950 to 1952—predominantly inward in the first two years but outward in 1952.

Related to the balance of payments trends were the fluctuations in the Canadian dollar since the departure from a fixed rate of exchange in October

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*Loading newsprint in a ship's hold. Canada's forest products hold the top three positions in value of exports—in 1952 newsprint and wood-pulp were first and second and lumber was third.*





Canada's spectacular Rocky Mountain parks are well known and popular vacation lands.

1950. The average value of the United States dollar in Canada was \$105.27 in 1951 and \$102.56 in December of that year. In 1952 the Canadian dollar strengthened during the year and in September the United States dollar averaged \$95.98 in Canada.

### Travel Between Canada and Other Countries

Prior to 1951 travellers from other countries normally spent more money in Canada every year than Canadian travellers spent in other countries. Each year international travel expenditures brought to Canada a substantial credit balance with the United States and a small debit balance with overseas countries. However, in 1951 travel for the first time produced a net outflow of funds from Canada. The credit balance with the United States which has been customarily substantial, dropped from \$67,000,000 in 1950 to \$12,000,000 and was too small to offset a debit balance of \$18,000,000 with overseas countries. In 1952 there was a debit balance between Canada and the United States. With a population less than a tenth that of the United States, Canadians spent more on travel in the United States than residents of that country spent on travel in Canada.

The balance of payments on travel account between Canada and the United States for the years 1947 to 1952 were as follows:—

| <u>Year</u>           | <u>Credits</u> | <u>Debits</u> | <u>Balance</u> | <u>Year</u>           | <u>Credits</u> | <u>Debits</u> | <u>Balance</u> |
|-----------------------|----------------|---------------|----------------|-----------------------|----------------|---------------|----------------|
| (Millions of Dollars) |                |               |                | (Millions of Dollars) |                |               |                |
| 1947.....             | 241            | 152           | + 89           | 1950.....             | 260            | 193           | + 67           |
| 1948.....             | 267            | 113           | +154           | 1951.....             | 258            | 246           | + 12           |
| 1949.....             | 267            | 165           | +102           | 1952.....             | 258            | 294           | - 36           |



The high credit balance in 1948 was largely due to restrictions under the emergency exchange conservation measures. Withdrawal of these restrictions in subsequent years left Canadians free to travel in the United States and each year they have gone in ever increasing numbers until in 1952 their expenditures were between two and three times the 1948 level. During the same period, expenditures in Canada by visitors from the United States have shown little change but have surpassed those of any other year by a margin of \$15,000,000 or more.

Expenditures of travellers between Canada and the United States from 1946 to 1951 are classified below by means of travel.

| <i>Means of Travel</i>                                 | <i>1946</i>                    | <i>1947</i> | <i>1948</i> | <i>1949</i> | <i>1950</i> | <i>1951</i> |
|--------------------------------------------------------|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| <b>EXPENDITURES IN CANADA OF TRAVELLERS FROM U.S.—</b> |                                |             |             |             |             |             |
|                                                        | (Millions of Canadian Dollars) |             |             |             |             |             |
| Automobile.....                                        | 98.0                           | 118.4       | 139.4       | 145.3       | 148.1       | 151.6       |
| Rail.....                                              | 61.4                           | 56.6        | 55.9        | 52.8        | 43.5        | 43.6        |
| Boat.....                                              | 17.3                           | 22.1        | 16.0        | 13.8        | 13.7        | 10.5        |
| Through bus.....                                       | 15.8                           | 16.7        | 20.8        | 24.4        | 20.8        | 17.7        |
| Aircraft.....                                          | 10.3                           | 13.1        | 12.1        | 17.6        | 21.4        | 22.2        |
| Other (pedestrians, local bus, etc.)....               | 13.3                           | 14.2        | 23.2        | 13.2        | 12.2        | 12.4        |
| TOTALS.....                                            | 216.1                          | 241.1       | 267.4       | 267.1       | 259.7       | 258.0       |
| <b>EXPENDITURES IN U.S. OF TRAVELLERS FROM CANADA—</b> |                                |             |             |             |             |             |
| Automobile.....                                        | 21.7                           | 32.6        | 25.1        | 52.9        | 67.3        | 93.9        |
| Rail.....                                              | 49.6                           | 52.2        | 35.9        | 46.2        | 47.0        | 58.2        |
| Boat.....                                              | 3.2                            | 4.1         | 3.1         | 4.6         | 3.5         | 3.9         |
| Through bus.....                                       | 28.5                           | 34.6        | 25.5        | 33.1        | 42.0        | 48.8        |
| Aircraft.....                                          | 8.8                            | 9.0         | 7.3         | 9.7         | 13.8        | 22.1        |
| Other (pedestrians, local bus, etc.)....               | 18.1                           | 19.8        | 16.3        | 18.4        | 19.1        | 19.0        |
| TOTALS.....                                            | 129.9                          | 152.3       | 113.2       | 164.9       | 192.7       | 245.9       |

The distribution of population in Canada and the United States has an important effect on travel between the two countries. Most of the Canadian people reside within a few hundred miles of the international boundary, whereas the population of the United States is spread over a large area with many important centres of population far from the northern border. Thus it is easier for most Canadians to visit the United States than it is for most residents of the United States to visit Canada.

In terms of volume of traffic there are still more United States visits to Canada than Canadian visits to the United States. The average American visit, however, brings in less money than the average Canadian visit takes out. In 1951 the average expenditure rate per traveller for visits lasting longer than 48 hours was \$85\* for Canadians visiting the United States against \$53\* for Americans visiting Canada.

The volume of travel between Canada and overseas countries is normally less than 1 p.c. of that between Canada and the United States. Overseas travellers, however, stay for longer visits and transportation costs are higher, hence their expenditures are more significant than the number of travellers would suggest. The sum of debits and credits in Canada's overseas travel in 1952 amounted to more than \$50,000,000, close to 10 p.c. of travel expenditures between Canada and the United States. The debit balance from Canada's overseas travel in 1952 amounted to approximately \$24,000,000.

\* These rates are inclusive of children and of persons visiting friends or relatives. Corresponding rates restricted to adults using hotels or other commercial accommodation would be materially higher.



*Centre Block of Canada's Parliament Buildings in tulip time.*

# Finance

## • Public Finance

A summary of the combined finance statistics of all governments is given in this section, together with more detailed treatments of federal, provincial and municipal statistics. The public finance data are followed by an outline of the Canadian banking system, the money supply, and figures of the insurance business conducted in Canada.

### Combined Statistics of All Governments

**Combined Revenue and Expenditure.**—The following tables show the trend of government revenue and expenditure for the past few years. In 1949, revenue of the Government of Canada decreased and that of provincial and municipal governments increased, continuing the trend of the post-war years. The expenditure table reflects the accelerated participation by provincial and municipal governments in capital expenditure programs deferred during the war years, but does not yet reflect the participation of the Government of Canada in the defence preparedness program.

Revenue and expenditure are shown on a "net" basis. Examples of revenue treated as offsets to expenditure are grants-in-aid and shared-cost contributions from other governments, interest revenue, institutional revenue, and certain other sales of commodities and services. It should be noted that expenditure excludes debt retirement but includes expenditure financed from capital borrowings.

### Comparative Government of Canada, Provincial and Municipal Revenue, 1937-49

NOTE.—Figures are for the fiscal years ended nearest to Dec. 31. Inter-governmental transfers such as subsidies paid by the Government of Canada to the provinces are excluded.

| Year                    | Government<br>of Canada | Provincial and Municipal |                      |           | Grand<br>Total |
|-------------------------|-------------------------|--------------------------|----------------------|-----------|----------------|
|                         |                         | Provincial               | Municipal            | Total     |                |
| Revenue                 |                         |                          |                      |           |                |
|                         | \$'000                  | \$'000                   | \$'000               | \$'000    | \$'000         |
| 1937.....               | 460,544                 | 221,397                  | 304,161              | 525,558   | 986,102        |
| 1939.....               | 480,027                 | 236,223                  | 316,964              | 553,187   | 1,033,214      |
| 1941.....               | 1,389,433               | 301,842                  | 331,206              | 633,048   | 2,022,481      |
| 1943.....               | 2,522,414               | 250,646                  | 340,690              | 591,336   | 3,113,750      |
| 1945.....               | 2,694,116               | 316,724                  | 356,289 <sup>1</sup> | 673,013   | 3,367,129      |
| 1947.....               | 2,663,310               | 533,857                  | 413,351 <sup>1</sup> | 947,208   | 3,610,518      |
| 1948.....               | 2,575,514               | 635,697                  | 462,977 <sup>1</sup> | 1,098,674 | 3,674,188      |
| 1949 <sup>2</sup> ..... | 2,411,218               | 730,842                  | 511,835 <sup>1</sup> | 1,242,677 | 3,653,895      |
| Percentage Distribution |                         |                          |                      |           |                |
| 1937.....               | 46.7                    | 22.5                     | 30.8                 | 53.3      | 100.0          |
| 1939.....               | 46.5                    | 22.8                     | 30.7                 | 53.5      | 100.0          |
| 1941.....               | 68.7                    | 14.9                     | 16.4                 | 31.3      | 100.0          |
| 1943.....               | 81.0                    | 8.1                      | 10.9                 | 19.0      | 100.0          |
| 1945.....               | 80.0                    | 9.4                      | 10.6                 | 20.0      | 100.0          |
| 1947.....               | 73.8                    | 14.8                     | 11.4                 | 26.2      | 100.0          |
| 1948.....               | 70.1                    | 17.3                     | 12.6                 | 29.9      | 100.0          |
| 1949.....               | 66.0                    | 20.0                     | 14.0                 | 34.0      | 100.0          |

<sup>1</sup> Includes estimate for Quebec.

<sup>2</sup> Includes Newfoundland.





Official Residence  
of Canada's Prime  
Minister, Sussex  
Street, Ottawa

### Comparative Government of Canada, Provincial and Municipal Expenditure (Capital and Current), 1937-49

NOTE.—Figures are for the fiscal years ended nearest to Dec. 31. Inter-governmental transfers such as subsidies paid by the Government of Canada to the provinces are excluded.

| Year                    | Government<br>of<br>Canada | Provincial and Municipal |                      |           | Grand<br>Total |
|-------------------------|----------------------------|--------------------------|----------------------|-----------|----------------|
|                         |                            | Provincial               | Municipal            | Total     |                |
|                         | Expenditure                |                          |                      |           |                |
|                         | \$'000                     | \$'000                   | \$'000               | \$'000    | \$'000         |
| 1937.....               | 444,599                    | 359,689                  | 296,288              | 655,977   | 1,100,576      |
| 1939.....               | 571,198                    | 354,883                  | 304,580              | 659,463   | 1,230,661      |
| 1941.....               | 1,718,787                  | 311,260                  | 292,517              | 603,777   | 2,322,564      |
| 1943.....               | 4,907,475                  | 300,997                  | 300,579              | 601,576   | 5,509,051      |
| 1945.....               | 4,652,841                  | 370,875                  | 334,261 <sup>1</sup> | 705,136   | 5,357,977      |
| 1947.....               | 1,762,472                  | 625,539                  | 454,477 <sup>1</sup> | 1,080,016 | 2,842,488      |
| 1948.....               | 1,799,404                  | 775,814                  | 545,396 <sup>1</sup> | 1,321,210 | 3,120,614      |
| 1949 <sup>2</sup> ..... | 2,010,587                  | 873,929                  | 619,106 <sup>1</sup> | 1,493,035 | 3,503,622      |
|                         | Percentage Distribution    |                          |                      |           |                |
| 1937.....               | 40.4                       | 32.7                     | 26.9                 | 59.6      | 100.0          |
| 1939.....               | 46.4                       | 28.8                     | 24.8                 | 53.6      | 100.0          |
| 1941.....               | 74.0                       | 13.4                     | 12.6                 | 26.0      | 100.0          |
| 1943.....               | 89.1                       | 5.5                      | 5.4                  | 10.9      | 100.0          |
| 1945.....               | 86.8                       | 6.9                      | 6.3                  | 13.2      | 100.0          |
| 1947.....               | 62.0                       | 22.0                     | 16.0                 | 38.0      | 100.0          |
| 1948.....               | 57.7                       | 24.8                     | 17.5                 | 42.3      | 100.0          |
| 1949.....               | 57.4                       | 24.9                     | 17.7                 | 42.6      | 100.0          |

<sup>1</sup> Includes estimate for Quebec.

<sup>2</sup> Includes Newfoundland.

**Combined Debt.**—The combined debt of all governments increased by about 2.5 p.c. from 1949 to 1950, only the indirect debt of the Federal Government and of municipal governments showing any decrease in this comparison. Comparing 1946 with 1950, the increase of \$771,608,000 in the combined debt was mainly accounted for by an advance in the indirect debt of provincial governments.

# Combined Government of Canada, Provincial and Municipal Direct and Indirect Debt, 1946-50

NOTE.—Figures as at fiscal years ended nearest Dec. 31.

| Item                                               | 1946              | 1947              | 1948              | 1949 <sup>1</sup> | 1950 <sup>1</sup>      |
|----------------------------------------------------|-------------------|-------------------|-------------------|-------------------|------------------------|
|                                                    | \$'000            | \$'000            | \$'000            | \$'000            | \$'000                 |
| <b>Direct Debt—</b>                                |                   |                   |                   |                   |                        |
| Government of Canada.....                          | 18,048,660        | 17,631,616        | 17,460,635        | 17,299,664        | 17,554,469             |
| Provincial.....                                    | 1,817,524         | 1,746,824         | 1,820,191         | 1,941,941         | 2,005,071 <sup>2</sup> |
| Municipal <sup>3</sup> .....                       | 936,835           | 980,550           | 1,009,193         | 1,128,926         | 1,277,841              |
| Totals.....                                        | 20,803,019        | 20,358,990        | 20,290,019        | 20,370,531        | 20,837,381             |
| Less Inter-governmental Debt.                      | 231,055           | 150,047           | 166,338           | 199,066           | 214,391                |
| <b>Combined Direct Debt....</b>                    | <b>20,571,964</b> | <b>20,208,943</b> | <b>20,123,681</b> | <b>20,171,465</b> | <b>20,622,990</b>      |
| <b>Indirect Debt—</b>                              |                   |                   |                   |                   |                        |
| Government of Canada.....                          | 621,058           | 603,468           | 654,803           | 729,756           | 701,181                |
| Provincial.....                                    | 220,459           | 471,599           | 564,509           | 737,870           | 860,371                |
| Municipal <sup>3</sup> .....                       | 45,994            | 45,574            | 47,006            | 46,249            | 45,542                 |
| Totals.....                                        | 887,511           | 1,120,641         | 1,266,318         | 1,513,875         | 1,607,094              |
| Less Inter-governmental Debt.                      | 21,710            | 21,094            | 22,382            | 21,900            | 20,711                 |
| <b>Combined Indirect Debt..</b>                    | <b>865,801</b>    | <b>1,099,547</b>  | <b>1,243,936</b>  | <b>1,491,975</b>  | <b>1,586,383</b>       |
| <b>Grand Totals, Direct and Indirect Debt.....</b> | <b>21,437,765</b> | <b>21,308,490</b> | <b>21,367,617</b> | <b>21,663,440</b> | <b>22,209,373</b>      |

<sup>1</sup> Includes Newfoundland.  
estimate for Quebec.

<sup>2</sup> Includes Yukon Territory.

<sup>3</sup> Includes an

Drawing room, Surveys and Mapping Branch of the Federal Department of Mines and Technical Surveys, where the official maps of Canada are made.



Governmental guarantees of debt which increase indirect debt, and capital borrowings for non-expense purposes such as for loans and advances which increase direct debt, are not reflected in the revenue and expenditure tables.

## *Finances of the Federal Government*

Federal Government accounts for the fiscal year ended Mar. 31, 1952, showed a surplus of revenue over expenditure amounting to \$248,033,402 compared with a surplus of \$211,294,251 for the previous fiscal year. Revenue increased and expenditure was at the highest level since 1946.

One of the most interesting aspects of federal finance to the ordinary citizen is the growth in the net debt of Canada. The following table is of particular interest since it shows the trend from Confederation down to the latest year, 1952. At Confederation the total net debt of Canada was only \$76,000,000 and represented \$21.58 per head of the population. The two world wars caused staggering increases; the net debt which was \$336,000,000 in 1914 increased to \$2,341,000,000 in 1921, or from \$42.64 per capita to \$266.37 per capita. By the end of World War II in 1946, the net debt reached \$13,421,000,000 or \$1,091.85 per head of the population. The Budget surpluses of subsequent years reduced the net debt in 1952 to \$775.14 per capita.

### *Finances of the Federal Government, Years Ended Mar. 31, 1868-52*

| Year      | Total Revenue | Per Capita Revenue <sup>1</sup> | Total Expenditure <sup>2</sup> | Per Capita Expenditure <sup>1</sup> | Net Debt at End of Year | Net Debt Per Capita <sup>3</sup> |
|-----------|---------------|---------------------------------|--------------------------------|-------------------------------------|-------------------------|----------------------------------|
|           | \$            | \$                              | \$                             | \$                                  | \$                      | \$                               |
| 1868..... | 13,687,928    | 3.95                            | 14,071,689                     | 4.06                                | 75,757,135              | 21.58                            |
| 1871..... | 19,375,037    | 5.34                            | 19,293,478                     | 5.32                                | 77,706,518              | 21.06                            |
| 1881..... | 29,635,298    | 6.96                            | 33,796,643                     | 7.94                                | 155,395,780             | 35.93                            |
| 1891..... | 38,579,311    | 8.07                            | 40,793,208                     | 8.54                                | 257,809,031             | 49.21                            |
| 1901..... | 52,516,333    | 9.91                            | 57,982,866                     | 10.94                               | 238,480,004             | 49.99                            |
| 1911..... | 117,884,328   | 16.87                           | 122,861,250                    | 17.58                               | 340,042,052             | 47.18                            |
| 1921..... | 436,292,184   | 50.99                           | 528,302,513                    | 61.75                               | 2,340,878,984           | 266.37                           |
| 1931..... | 357,720,435   | 35.04                           | 441,568,413                    | 43.26                               | 2,261,611,937           | 217.97                           |
| 1939..... | 502,171,354   | 45.03                           | 553,063,098                    | 49.60                               | 3,152,559,314           | 279.80                           |
| 1940..... | 562,093,459   | 49.89                           | 680,793,792                    | 60.42                               | 3,271,259,647           | 287.43                           |
| 1941..... | 872,169,645   | 76.63                           | 1,249,601,446                  | 109.80                              | 3,648,691,449           | 317.08                           |
| 1942..... | 1,488,536,343 | 129.36                          | 1,885,066,055                  | 163.82                              | 4,045,221,161           | 347.11                           |
| 1943..... | 2,249,496,177 | 193.02                          | 4,387,124,118                  | 376.45                              | 6,182,849,101           | 524.19                           |
| 1944..... | 2,765,017,713 | 234.42                          | 5,322,253,505                  | 451.23                              | 8,740,084,893           | 731.63                           |
| 1945..... | 2,687,334,799 | 224.96                          | 5,245,611,924                  | 439.11                              | 11,298,362,018          | 935.91                           |
| 1946..... | 3,013,185,074 | 249.60                          | 5,136,228,505                  | 425.47                              | 13,421,405,449          | 1,091.85                         |
| 1947..... | 3,007,876,313 | 244.70                          | 2,634,227,412                  | 214.30                              | 13,047,756,548          | 1,039.58                         |
| 1948..... | 2,871,746,110 | 228.81                          | 2,195,626,453                  | 174.94                              | 12,371,636,893          | 964.80                           |
| 1949..... | 2,771,395,075 | 216.13                          | 2,175,892,332                  | 169.69                              | 11,776,134,152          | 875.74                           |
| 1950..... | 2,580,140,615 | 191.87                          | 2,448,615,662                  | 182.09                              | 11,644,609,199          | 849.23                           |
| 1951..... | 3,112,535,948 | 226.99                          | 2,901,241,698                  | 211.58                              | 11,433,314,948          | 816.14                           |
| 1952..... | 3,980,908,652 | 284.17                          | 3,732,875,250                  | 266.46                              | 11,185,281,546          | 775.14                           |

<sup>1</sup> The basis of calculation is the estimated population figure as at June 1 of the immediately preceding year.

<sup>2</sup> Includes non-active advances to railways and transfers from active to non-active assets for 1911 and subsequent years.

<sup>3</sup> The basis of calculation is the estimated population figure as at June 1 of same year.



# Summary of Revenue and Expenditure, Years Ended Mar. 31, 1949-52

| Item                                           | 1949          | 1950          | 1951          | 1952          |
|------------------------------------------------|---------------|---------------|---------------|---------------|
| Revenue                                        | \$            | \$            | \$            | \$            |
| Customs import duties....                      | 222,975,471   | 225,877,683   | 295,721,750   | 346,364,563   |
| Excise duties.....                             | 204,651,969   | 220,564,504   | 241,046,174   | 217,939,983   |
| Income tax.....                                | 1,297,999,404 | 1,272,650,191 | 1,513,135,510 | 2,161,373,408 |
| Excess profits tax.....                        | 44,791,918    | -1,788,388    | 10,140,910    | 2,364,909     |
| Sales tax (net).....                           | 377,302,763   | 403,437,159   | 460,120,405   | 573,470,562   |
| Succession duties.....                         | 25,549,777    | 29,919,780    | 33,599,089    | 38,207,985    |
| Other taxes.....                               | 262,870,974   | 172,456,150   | 231,586,061   | 318,053,672   |
| Totals, Revenue from Taxation.....             | 2,436,142,276 | 2,323,117,079 | 2,785,349,899 | 3,657,775,082 |
| Non-tax revenue.....                           | 212,947,551   | 205,599,358   | 233,348,382   | 281,971,660   |
| Totals, Ordinary Revenue                       | 2,649,089,827 | 2,528,716,437 | 3,018,698,281 | 3,939,746,742 |
| Special receipts and other credits.....        | 122,305,248   | 51,424,178    | 93,837,667    | 41,161,910    |
| Totals, Revenue.....                           | 2,771,395,075 | 2,580,140,615 | 3,112,535,948 | 3,980,908,652 |
| Expenditure                                    |               |               |               |               |
| Finance.....                                   | 701,178,588   | 745,239,512   | 752,572,062   | 873,613,548   |
| Agriculture.....                               | 61,772,531    | 75,046,567    | 142,785,183   | 67,134,389    |
| Auditor General's Office....                   | 533,092       | 561,804       | 573,777       | 601,128       |
| Citizenship and Immigration <sup>1</sup> ..... | ...           | 17,701,414    | 20,672,564    | 23,240,788    |
| Civil Service Commission..                     | 1,364,297     | 1,512,851     | 1,580,319     | 1,691,663     |
| Chief Electoral Officer.....                   | 287,092       | 4,456,108     | 276,925       | 367,736       |
| Defence Production.....                        | ...           | ...           | ...           | 30,978,479    |
| External Affairs.....                          | 14,514,056    | 16,680,410    | 22,079,561    | 37,582,459    |
| Fisheries.....                                 | 5,423,415     | 7,586,370     | 8,964,464     | 8,733,025     |
| Governor General and Lieutenant Governors...   | 242,380       | 274,025       | 244,239       | 275,114       |
| Insurance.....                                 | 262,937       | 311,486       | 368,741       | 403,336       |
| Justice, including penitentiaries.....         | 9,887,873     | 10,959,086    | 12,406,679    | 14,038,715    |
| Labour.....                                    | 60,427,224    | 56,143,234    | 62,628,099    | 64,302,099    |
| Legislation.....                               | 3,763,152     | 5,229,174     | 4,710,966     | 5,945,263     |
| Mines and Resources <sup>1</sup> .....         | 47,498,079    | ...           | ...           | ...           |
| Mines and Technical Surveys <sup>1</sup> ..... | ...           | 25,356,752    | 17,556,401    | 27,751,836    |
| National Defence.....                          | 268,804,813   | 384,879,008   | 782,457,272   | 1,415,473,862 |
| National Health and Welfare.....               | 359,613,619   | 423,320,122   | 448,852,907   | 498,752,115   |
| National Revenue.....                          | 49,323,139    | 50,604,219    | 48,460,884    | 54,063,557    |
| Post Office.....                               | 77,642,621    | 82,639,741    | 91,781,466    | 97,973,263    |
| Prime Minister's Office....                    | 105,605       | 120,142       | 124,315       | 4,057,687     |
| Privy Council Office.....                      | 4,350,616     | 4,008,269     | 4,125,791     | 251,018       |
| Public Archives.....                           | 172,578       | 198,134       | 205,960       | ...           |
| Public Printing and Stationery.....            | 753,345       | 866,069       | 706,201       | 1,103,156     |
| Public Works.....                              | 51,067,102    | 67,058,184    | 73,646,433    | 77,544,088    |
| Reconstruction and Supply <sup>2</sup>         | 4,780,519     | ...           | ...           | ...           |
| Resources and Development <sup>1</sup> .....   | ...           | 25,388,855    | 31,200,626    | 34,432,805    |
| Royal Canadian Mounted Police.....             | 13,717,042    | 15,970,904    | 19,800,688    | 27,340,713    |
| Secretary of State.....                        | 1,558,814     | 1,600,450     | 2,064,965     | 2,399,468     |
| Trade and Commerce.....                        | 58,698,315    | 50,758,895    | 48,878,312    | 46,896,842    |
| Transport.....                                 | 101,269,992   | 127,766,477   | 85,123,464    | 99,900,569    |
| Veterans Affairs.....                          | 276,879,498   | 246,377,400   | 216,392,434   | 216,026,529   |
| Totals, Expenditure...                         | 2,175,892,334 | 2,448,615,662 | 2,901,241,698 | 3,732,875,250 |
| Deficit or Surplus.....                        | +595,502,741  | +131,524,953  | +211,294,250  | +248,033,402  |

<sup>1</sup> In 1950 the Department of Mines and Resources was reorganized into the three Departments—Citizenship and Immigration, Mines and Technical Surveys, and Resources and Development.  
<sup>2</sup> This Department was dissolved in 1949.

Revenue from taxation accounted for 91·9 p.c. of total revenue in 1951-52, compared with 89·5 p.c. in 1950-51. As a result of higher personal income-tax rates, revenue from income taxes, sustained by the buoyant condition of the national economy, increased by \$648,238,000 over the previous year. Non-tax revenues were up \$48,624,000 compared with 1950-51.

Some of the major items of expenditure were: interest on the public debt, which increased from \$425,217,500 in 1950-51 to \$432,423,000 in 1951-52; family allowances, which increased from \$309,465,000 to \$320,458,000; and expenditures by the Department of National Defence, which increased from \$782,457,000 to \$1,415,474,000. In addition, expenditure by the Department of Defence Production totalled \$30,978,000.

**The 1952-53 Budget.**—The Budget for the fiscal year ending Mar. 31, 1953, was presented to Parliament on Apr. 8, 1952. It proposed a number of tax changes which were designed to put the tax structure on a more orderly and stable basis. The 20-p.c. defence surtax on personal incomes was repealed and a new rate schedule was proposed which incorporated part of the defence surtax and at the same time provided for an average income-tax reduction of 6 p.c. in a full year. Tax deductions from salary and wages based on the new schedule commenced July 1, 1952, and the 1952 taxation year personal income-tax liability is determined from an income tax schedule which averaged the pre-budget structure and the new rate structure. Corporation income tax rates which had been 15 p.c. on the first \$10,000 of profits and 45·6 p.c. on profits in excess of \$10,000 were replaced by rates of 20 p.c. and 50 p.c. effective Jan. 1, 1952. It was announced that the eight provinces with which the Federal Government had tax rental agreements and which had been levying 5 p.c. corporation income taxes would be not asked to levy these taxes on profits earned after Dec. 31, 1951. Concurrently provision was made for a tax credit of 5 p.c. against the federal tax in respect of profits earned in provinces that did not enter into a tax agreement and continued to levy a provincial corporation income tax.

The rate of excise tax on all articles previously subject to a tax of 25 p.c. was reduced to 15 p.c. The 30-p.c. excise tax on soft drinks was reduced to 15 p.c. The 15-p.c. tax on stoves, washing machines, and refrigerators was repealed. The excise tax on cigarettes was reduced from 2 $\frac{3}{4}$  cents for five cigarettes to 2 cents for five cigarettes.

**Borrowings.**—During the year ended Mar. 31, 1952, the Federal Government reduced its outstanding net debt by \$248,033,402. Total redemption of debt during the year, excluding the recurring issues of treasury bills, amounted to \$2,759,589,380, of which \$2,100,000,000 was financed through renewals or conversions and \$357,649,750 was raised by the sale of new issues to individuals for cash. Such new issues consisted of \$200,000,000 of 1 $\frac{1}{8}$  p.c. Deposit Certificates issued Aug. 29, 1951, and maturing Feb. 27, 1952, and a two-year 2-p.c. loan of \$200,000,000 issued Nov. 1, 1951, at 99·15 p.c.; \$357,649,750 was raised by the sale of a new issue of 3 $\frac{1}{2}$  p.c. Canada Savings Bonds, Series VI, for cash.

**Income Tax.**—The income tax was instituted in 1917 as a part of war-tax revenue. Before the outbreak of World War II, it had become a permanent and important part of the taxation structure and the chief source of ordinary



*"D" Company of the Princess Patricia's Canadian Light Infantry on exercise, travelling by snowmobile over the rugged terrain north of Whitehorse, Yukon Territory.*

revenue. Income-tax rates were increased to help finance the second world war and a compulsory savings feature was adopted with respect to individuals and to corporations. Repayment of the refundable portion of the personal income tax was completed in 1949 and of the excess profits tax in 1952.

Since the end of the War, the weight of individual income tax was reduced each year up to and including 1949 and higher exemption allowances were given. However, the expansion of personal incomes and the growth of the labour force offset to a considerable extent the effects of the reduction in rates. In 1950 the rates of personal income tax were increased again to take care of rising defence costs following the outbreak of war in Korea, and in 1951 a defence surtax of 20 p.c. was introduced which applied at the rate of 10 p.c. to 1951 incomes. The Budget of 1952 announced a new schedule of rates which incorporated the greater part of the 20-p.c. defence surtax.

Taxes on corporation incomes were reduced following the end of the War. Excess profits tax rates were also reduced and finally ceased to apply after Jan. 1, 1948, and with the ending of that tax, corporation income-tax rates were again raised.

Income tax changes in the Budget of 1952-53 are given briefly at p. 300.



### Number of Taxpayers, Total Income and Tax Collected Thereon, by Income Classes, 1950

| Income Class       | Taxpayers        | Total Income         | Total Tax          |
|--------------------|------------------|----------------------|--------------------|
|                    | No.              | \$                   | \$                 |
| Below \$1,000..... | 7,700            | 4,163,000            | 354,000            |
| \$1,000—2,000..... | 739,360          | 1,105,645,000        | 48,165,000         |
| 2,000—3,000.....   | 889,900          | 2,227,347,000        | 96,504,000         |
| 3,000—4,000.....   | 434,200          | 1,471,108,000        | 80,976,000         |
| 4,000—5,000.....   | 134,380          | 593,282,000          | 44,223,000         |
| 5,000—10,000.....  | 125,420          | 823,957,000          | 95,209,000         |
| Over \$10,000..... | 43,280           | 807,301,000          | 209,505,000        |
| <b>Totals.....</b> | <b>2,374,240</b> | <b>7,032,803,000</b> | <b>574,936,000</b> |

### Number of Taxpayers, Total Income and Tax Collected Thereon, by Occupational Classes, 1950

| Class                     | Taxpayers        | Total Income         | Total Tax          |
|---------------------------|------------------|----------------------|--------------------|
|                           | No.              | \$                   | \$                 |
| Primary producers.....    | 42,630           | 160,975,000          | 14,601,000         |
| Professionals.....        | 25,640           | 190,291,000          | 34,523,000         |
| Employees.....            | 2,084,590        | 5,578,592,000        | 368,053,000        |
| Salesmen.....             | 24,900           | 111,198,000          | 11,323,000         |
| Business proprietors..... | 137,970          | 683,781,000          | 92,306,000         |
| Financial.....            | 50,350           | 279,626,000          | 49,224,000         |
| Estates.....              | 3,990            | 10,851,000           | 2,715,000          |
| Deceased.....             | 3,430            | 15,033,000           | 1,957,000          |
| Unclassified.....         | 740              | 2,456,000            | 234,000            |
| <b>Totals.....</b>        | <b>2,374,240</b> | <b>7,032,803,000</b> | <b>574,936,000</b> |

Increasing tax rates during a period of rapidly rising income has resulted in the heavy tax collections that are such a marked feature of current revenue.

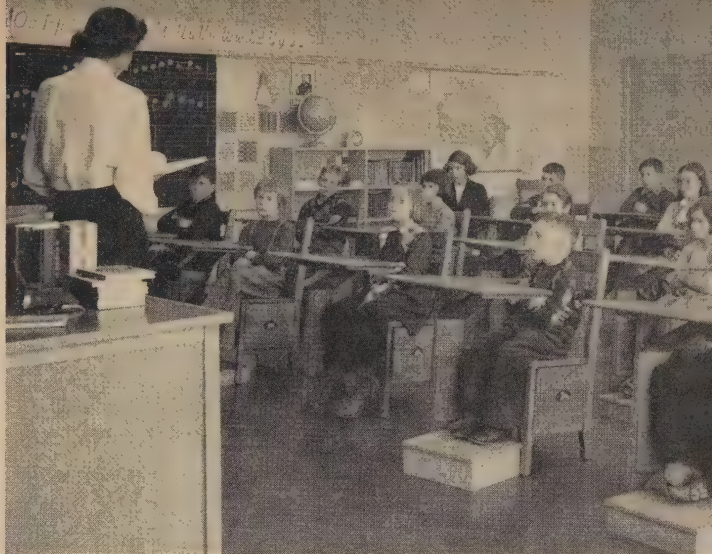
### Collections under the Income Tax Act, Years Ended Mar. 31, 1943-52

| Year      | General Income Tax |               | Tax on Un-<br>distributed<br>Income | Non-<br>Resident<br>Tax | Total<br>Income<br>Tax |
|-----------|--------------------|---------------|-------------------------------------|-------------------------|------------------------|
|           | Individuals        | Corporations  |                                     |                         |                        |
|           | \$                 | \$            | \$                                  | \$                      | \$                     |
| 1943..... | 534,138,152        | 347,969,723   | —                                   | 28,080,797              | 910,188,672            |
| 1944..... | 813,435,128        | 311,378,714   | —                                   | 26,943,193              | 1,151,757,035          |
| 1945..... | 767,755,082        | 276,403,849   | —                                   | 28,599,137              | 1,072,758,068          |
| 1946..... | 691,586,114        | 217,833,540   | —                                   | 28,309,619              | 937,729,273            |
| 1947..... | 694,530,146        | 196,819,253   | 41,972,700                          | 30,136,146              | 963,458,245            |
| 1948..... | 659,828,215        | 351,535,006   | 12,596,108                          | 35,889,028              | 1,059,848,357          |
| 1949..... | 762,563,516        | 488,549,610   | 3,440,514                           | 43,445,764              | 1,297,999,404          |
| 1950..... | 621,982,213        | 602,072,622   | 1,120,510                           | 47,474,846              | 1,272,650,191          |
| 1951..... | 652,328,680        | 711,576,735   | 87,619,776                          | 61,610,319              | 1,513,135,510          |
| 1952..... | 975,776,320        | 1,118,067,202 | 14,612,872                          | 55,017,014              | 2,163,473,408          |

### Provincial Finance

When comparing 1949 figures of revenue, expenditure or debt of all provinces with those for previous years, it should be kept in mind that the 1949 figures include the Province of Newfoundland for the first time.

*The school is one of the first considerations in the establishment of the new communities springing up around outlying industrial projects. Here several elementary grades are taught in one classroom in the contractor's base camp school at Seven Islands, Que.*



There has been an impressive increase in both revenue and expenditure of all provincial governments during the past decade. In 1939 most provincial governments derived their largest revenue from taxes (chiefly corporation taxes and gasoline sales taxes), motor-vehicle licences and liquor-control revenues. To-day, taxes from all sources are still the greatest revenue producer. Privileges, licences and permits represent the second largest source of net general revenue, followed by Federal Government subsidies and tax agreement payments, and liquor profits. The emphasis in spending has also changed. In 1939 the main expenditures in order of size were for social welfare, debt charges (excluding debt retirement), education, health and transportation. In 1949 the heaviest item of expenditure was transportation, followed by education, health, social welfare and natural resources.



*The Ontario Government's system of forest fire protection, based on the lookout tower with radio communication and augmented under certain conditions by aircraft patrol, is considered the most effective detection system in use anywhere.*

# Gross Ordinary Revenue and Expenditure of Provincial Governments, by Provinces, 1948 and 1949

NOTE.—Figures are for fiscal years ended nearest Dec. 31.

| Province                  | Gross Ordinary Revenue |                | Gross Ordinary Expenditure |                |
|---------------------------|------------------------|----------------|----------------------------|----------------|
|                           | 1948                   | 1949           | 1948                       | 1949           |
|                           | \$'000                 | \$'000         | \$'000                     | \$'000         |
| Newfoundland.....         | ...                    | 19,944         | ...                        | 24,542         |
| Prince Edward Island..... | 5,697                  | 6,375          | 5,086                      | 6,418          |
| Nova Scotia.....          | 40,253                 | 44,426         | 35,371                     | 44,301         |
| New Brunswick.....        | 34,026                 | 36,885         | 32,176                     | 36,997         |
| Quebec.....               | 231,508                | 244,514        | 197,622                    | 212,605        |
| Ontario.....              | 254,901                | 280,914        | 258,059                    | 291,425        |
| Manitoba.....             | 44,107                 | 48,663         | 39,182                     | 43,340         |
| Saskatchewan.....         | 66,226                 | 72,690         | 60,729                     | 67,961         |
| Alberta.....              | 71,347                 | 98,626         | 47,444                     | 52,105         |
| British Columbia.....     | 119,669                | 145,090        | 113,327                    | 156,120        |
| <b>Totals</b> .....       | <b>867,734</b>         | <b>998,127</b> | <b>788,996</b>             | <b>935,814</b> |

## Net General Revenue and Expenditure of Provincial Governments, by Provinces, 1948 and 1949

| Province                  | Net General Revenue |                | Net General Expenditure |                |
|---------------------------|---------------------|----------------|-------------------------|----------------|
|                           | 1948                | 1949           | 1948                    | 1949           |
|                           | \$'000              | \$'000         | \$'000                  | \$'000         |
| Newfoundland.....         | ...                 | 17,424         | ...                     | 26,077         |
| Prince Edward Island..... | 4,730               | 5,091          | 5,915                   | 6,743          |
| Nova Scotia.....          | 32,667              | 34,249         | 44,346                  | 52,703         |
| New Brunswick.....        | 28,453              | 29,431         | 42,484                  | 40,037         |
| Quebec.....               | 203,258             | 207,040        | 234,027                 | 197,651        |
| Ontario.....              | 220,024             | 235,421        | 250,738                 | 280,550        |
| Manitoba.....             | 35,902              | 38,042         | 35,897                  | 38,831         |
| Saskatchewan.....         | 56,332              | 61,275         | 55,375                  | 60,446         |
| Alberta.....              | 62,957              | 88,363         | 55,938                  | 58,729         |
| British Columbia.....     | 100,678             | 124,265        | 109,550                 | 163,267        |
| <b>Totals</b> .....       | <b>745,001</b>      | <b>840,601</b> | <b>834,270</b>          | <b>925,034</b> |

## Analysis of Net General Revenue of Provincial Governments, 1948 and 1949

| Source                                      | 1948    | 1949    | Source                                                     | 1948           | 1949                |
|---------------------------------------------|---------|---------|------------------------------------------------------------|----------------|---------------------|
|                                             | \$'000  | \$'000  |                                                            | \$'000         | \$'000              |
| Taxes.....                                  | 372,331 | 417,828 | Non-revenue and surplus receipts.....                      | 3,144          | 2,770               |
| Privileges, Licences and Permits—           |         |         | <b>Totals</b> .....                                        | <b>745,001</b> | <b>840,601</b>      |
| Motor-vehicles.....                         | 50,573  | 58,198  |                                                            |                |                     |
| Other.....                                  | 85,797  | 119,821 | <b>SUMMARY OF LIQUOR CONTROL REVENUE (included above)—</b> |                |                     |
| Sales and services.....                     | 20,046  | 20,222  | Taxes.....                                                 | 10,349         | 1,477 <sup>1</sup>  |
| Fines and penalties.....                    | 2,087   | 2,230   | Permits.....                                               | 16,132         | 25,932 <sup>1</sup> |
| Other Governments—                          |         |         | Fines and penalties.....                                   | 381            | 723                 |
| Dominion-Provincial Taxation Agreement..... | 84,272  | 81,421  | Profits.....                                               | 102,521        | 106,803             |
| Dominion subsidies.....                     | 16,965  | 25,541  | Confiscations.....                                         | 3              | 37                  |
| Municipalities.....                         | 1,727   | 865     |                                                            |                |                     |
| Government enterprises.....                 | 107,136 | 110,619 | <b>TOTALS</b> .....                                        | <b>129,386</b> | <b>134,972</b>      |
| Other revenue.....                          | 923     | 1,086   |                                                            |                |                     |

<sup>1</sup> Certain levies, amounting to about \$9,000,000, shown under "Taxes" in 1948, are included under "Permits" in 1949.



## MAIN SOURCES OF NET GENERAL REVENUES OF PROVINCIAL GOVERNMENTS, 1949



### Analysis of Net General Expenditure of Provincial Governments, 1948 and 1949

| Function                                      | 1948    | 1949    | Function                                     | 1948           | 1949           |
|-----------------------------------------------|---------|---------|----------------------------------------------|----------------|----------------|
|                                               | \$'000  | \$'000  |                                              | \$'000         | \$'000         |
| General government.....                       | 34,280  | 32,672  | Local government planning and development..  | 1,270          | 1,289          |
| Protection of persons and property.....       | 34,929  | 45,866  | Debt charges.....                            | 88,131         | 101,341        |
| Transportation and communications.....        | 254,650 | 253,701 | Contributions to Municipal Governments—      |                |                |
| Health.....                                   | 102,361 | 143,051 | Shared-revenue.....                          | 6,659          | 11,079         |
| Social welfare.....                           | 61,596  | 80,053  | Subsidies.....                               | 6,131          | 3,797          |
| Recreation and cultural services.....         | 4,888   | 5,654   | Contributions to government enterprises..... | 9,934          | 13,687         |
| Education.....                                | 141,730 | 160,253 | Other expenditures.....                      | 6,452          | 5,324          |
| Natural resources and primary industries..... | 75,121  | 60,139  | Sub-Totals.....                              | 832,486        | 923,000        |
| Trade and industrial development.....         | 4,354   | 5,094   | Non-expense and surplus payments.....        | 1,784          | 2,034          |
|                                               |         |         | <b>Totals.....</b>                           | <b>834,270</b> | <b>925,034</b> |

Total direct and indirect debt showed a considerable increase in 1950. It amounted to \$209 per capita, compared with \$199 in 1949. The decrease in gross bonded debt of all provinces is accounted for entirely by decreases in Alberta. There was no change in Newfoundland, and the remaining provincial governments showed increases in bonded debt. The percentage of provincial government bonds outstanding, that are payable in Canada only, continued to increase—a trend that has been evident for a number of years.

# **Direct and Indirect Debt of Provincial Governments (less Sinking Funds), 1949 and 1950**

| Province                  | Direct Debt      |                  | Indirect Debt  |                |
|---------------------------|------------------|------------------|----------------|----------------|
|                           | 1949             | 1950             | 1949           | 1950           |
|                           | \$'000           | \$'000           | \$'000         | \$'000         |
| Newfoundland.....         | 4,949            | 4,397            | 5,025          | 5,867          |
| Prince Edward Island..... | 14,734           | 15,716           | 20             | 238            |
| Nova Scotia.....          | 138,958          | 162,404          | 3,854          | 3,814          |
| New Brunswick.....        | 141,271          | 151,473          | 10,204         | 12,615         |
| Quebec.....               | 374,930          | 368,380          | 299,185        | 310,044        |
| Ontario.....              | 681,679          | 684,212          | 394,441        | 492,899        |
| Manitoba.....             | 97,839           | 116,649          | 841            | 1,103          |
| Saskatchewan.....         | 151,029          | 161,886          | 654            | 805            |
| Alberta.....              | 134,731          | 116,032          | 3,161          | 4,121          |
| British Columbia.....     | 201,821          | 223,902          | 20,485         | 28,865         |
| <b>Totals.....</b>        | <b>1,941,941</b> | <b>2,005,051</b> | <b>737,870</b> | <b>860,371</b> |

## **Details of Direct and Indirect Debt of Provincial Governments (less Sinking Funds), 1949 and 1950**

| Detail                                | 1949             | 1950             | Detail                                          | 1949             | 1950             |
|---------------------------------------|------------------|------------------|-------------------------------------------------|------------------|------------------|
|                                       | \$'000           | \$'000           |                                                 | \$'000           | \$'000           |
| <b>Direct Debt—</b>                   |                  |                  | <b>Indirect Debt—</b>                           |                  |                  |
| Bonded debt.....                      | 1,955,095        | 1,946,505        | Guaranteed bonds..                              | 681,506          | 787,152          |
| Less sinking funds...                 | 343,986          | 308,114          | Less sinking funds..                            | 3,625            | 5,413            |
| Net bonded debt....                   | 1,611,109        | 1,638,391        | Net guaranteed bonds.....                       | 677,881          | 781,739          |
| Treasury Bills (held by)—             |                  |                  | Guaranteed bank loans.....                      | 16,396           | 23,088           |
| Federal Government                    | 93,703           | 89,664           | Municipal Improvement Assistance Act loans..... | 4,470            | 4,212            |
| Others.....                           | 39,380           | 63,587           | Other guarantees....                            | 39,123           | 51,332           |
| Totals, Treasury Bills.....           | 133,083          | 153,251          | <b>Totals, Net Indirect Debt.....</b>           | <b>737,870</b>   | <b>860,371</b>   |
| Saving certificates and deposits..... | 68,991           | 1,770            | <b>Grand Totals...</b>                          | <b>2,679,811</b> | <b>2,865,422</b> |
| Temporary loans and overdrafts.....   | 9,998            | 5,063            |                                                 |                  |                  |
| Bonds due.....                        | 107              | 301              |                                                 |                  |                  |
| Bond interest due...                  | 857              | 1,419            |                                                 |                  |                  |
| Accounts and other payables.....      | 96,282           | 182,565          |                                                 |                  |                  |
| Accrued expenditures                  | 21,514           | 21,729           |                                                 |                  |                  |
| Other Liabilities....                 | —                | 562              |                                                 |                  |                  |
| <b>Totals, Net Direct Debt.....</b>   | <b>1,941,941</b> | <b>2,005,051</b> |                                                 |                  |                  |

## **Gross Provincial Bonded Debt, by Currency of Payments, 1949 and 1950**

| Payable in—                                | 1949             | 1950 <sup>1</sup> |
|--------------------------------------------|------------------|-------------------|
|                                            | \$'000           | \$'000            |
| Canada only.....                           | 1,361,933        | 1,421,651         |
| London (England) only.....                 | 28,670           | 19,359            |
| London (England) and Canada.....           | 7,582            | 2,974             |
| New York only.....                         | —                | 16,875            |
| New York and Canada.....                   | 346,182          | 300,867           |
| London (England), New York and Canada..... | 210,728          | 183,014           |
| <b>Totals.....</b>                         | <b>1,955,095</b> | <b>1,944,740</b>  |

<sup>1</sup> Excludes bonded debt of other authorities, assumed by provincial governments.

## ***Municipal Finance***

At the end of 1950, there were 4,118 incorporated municipalities in Canada varying greatly in size, population and population density. They are classified as: (1) municipalities in metropolitan areas (the metropolitan areas outlined in the 1951 Census of Canada), whether urban or rural in character or organization, but chiefly urban; (2) other urban; and (3) other rural (whether semi-urban or entirely rural). Many of the larger municipalities delegate authority to subsidiary boards to supervise specific activities or services, such as utilities, health services and community planning. A few combine with other municipalities to establish special authorities which unify services for an area. In the sparsely settled areas of the provinces services that would normally be provided by local government are administered by the province when required. Local government in the Territories exists in modified form in a few settlements.

In most provinces the municipalities levy the local taxation for school authorities but exercise little or no control over school administration or finance. In much of Quebec and Prince Edward Island and in limited areas of some other provinces, school authorities levy and collect their own local taxes.

Municipal governments have felt, as have other levels of government, the pressure of post-war inflation and expansion, with a resultant increase in taxation, ordinary expenditure, and capital expenditure. The volume of the latter has led to a rapid growth in debenture debt since 1946 in urban areas to finance services required by expanding populations, reversing the downward debt trend of the period 1932-46.

**Municipal Revenue and Expenditure.**—Estimated municipal revenue for 1950 was \$576,200,000 of which \$402,100,000 or 69·8 p.c. was derived from taxes on real property, \$78,300,000 or 13·6 p.c. from other taxes, and the remaining \$95,800,000 or 16·6 p.c. from licences and permits, public utility contributions and provincial subsidies, etc.



**City Hall,  
Vancouver, B.C.**



Support of local schools currently requires the largest expenditure by municipal governments. In 1950 the amount spent on that service was \$174,300,000 or 30.6 p.c. of all expenditures. Other services cost \$311,200,000 or 54.6 p.c. and debt charges, together with provisions for debt repayment, \$84,300,000 or 14.8 p.c. Total expenditures were \$569,800,000. In 1939 expenditures of \$329,038,000 were divided as follows: 25 p.c. for school support, 48 p.c. for other services and 27 p.c. for debt charges and debt retirement.

**Municipal Assessed Valuations, Tax Levies, Collections and Receivables, 1941-50, and by Provinces, 1950**

| Year and Province         | Valuations on which Taxes were Levied | Tax Levies     | Tax Collections (Current and Arrears) | Percentage of Levies to Collections | Total Taxes Receivable and Property Acquired for Taxes |
|---------------------------|---------------------------------------|----------------|---------------------------------------|-------------------------------------|--------------------------------------------------------|
|                           | \$'000                                | \$'000         | \$'000                                |                                     | \$'000                                                 |
| 1941.....                 | 7,859,415                             | 272,458        | 237,680 <sup>1</sup>                  | 104.6 <sup>1</sup>                  | 237,133                                                |
| 1943.....                 | 7,906,826                             | 278,697        | 298,196                               | 107.0                               | 192,777                                                |
| 1945.....                 | 8,155,068                             | 291,693        |                                       |                                     | 134,021                                                |
| 1947 <sup>2</sup> .....   | 6,237,747                             | 259,941        | 255,748                               | 98.4                                | 79,482                                                 |
| 1948 <sup>2</sup> .....   | 6,504,665                             | 291,680        | 287,793                               | 98.7                                | 81,386                                                 |
| 1949 <sup>2</sup> .....   | 7,232,125                             | 334,138        | 325,109                               | 97.3                                | 87,423                                                 |
| <b>1950</b>               |                                       |                |                                       |                                     |                                                        |
| Newfoundland.....         |                                       | 1,031          | 970                                   | 94.1                                | 353                                                    |
| Prince Edward Island..... | 22,958                                | 865            | 823                                   | 95.1                                | 244                                                    |
| Nova Scotia.....          | 239,606                               | 14,320         | 13,946                                | 97.4                                | 5,211                                                  |
| New Brunswick.....        | 325,113                               | 12,294         | 11,178                                | 91.0                                | 4,539                                                  |
| Quebec.....               | 2,530,702 <sup>3</sup>                |                |                                       |                                     |                                                        |
| Ontario.....              | 4,199,319                             | 188,960        | 187,673                               | 99.3                                | 22,509                                                 |
| Manitoba.....             | 597,993                               | 32,658         | 30,417                                | 93.1                                | 10,747                                                 |
| Saskatchewan.....         | 886,389                               | 38,178         | 35,082                                | 91.9                                | 20,841                                                 |
| Alberta.....              | 747,262                               | 39,563         | 37,312                                | 94.3                                | 21,381                                                 |
| British Columbia.....     | 622,442                               | 38,959         | 38,931                                | 99.9                                | 9,138                                                  |
| <b>Totals, 1950....</b>   | <b>10,171,784</b>                     | <b>366,828</b> | <b>356,332</b>                        | <b>97.1</b>                         | <b>94,963</b>                                          |

<sup>1</sup> Excludes Quebec cities and towns.  
available.

<sup>2</sup> Quebec not included as information not

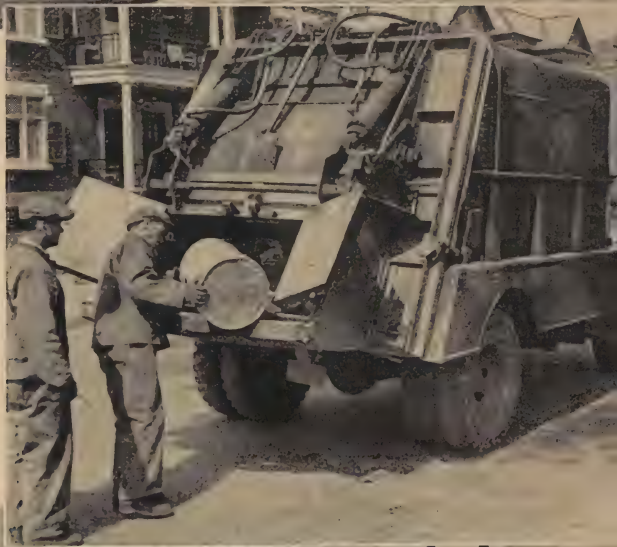
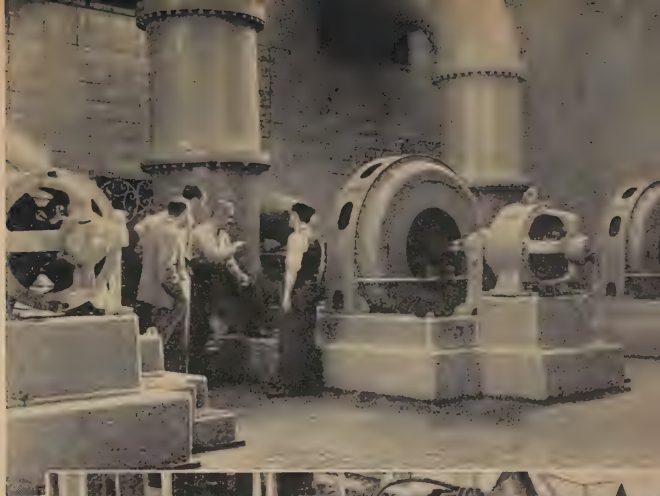
<sup>3</sup> Cities and towns, only.

**Direct and Indirect Liabilities of Municipal Governments (less Sinking Funds), by Provinces, 1948-50**

| Province                  | 1948                |               | 1949                |               | 1950                |               |
|---------------------------|---------------------|---------------|---------------------|---------------|---------------------|---------------|
|                           | Direct              | Indirect      | Direct              | Indirect      | Direct              | Indirect      |
|                           | \$'000              | \$'000        | \$'000              | \$'000        | \$'000              | \$'000        |
| Newfoundland.....         |                     | ..            | 3,312               | ..            | 3,589               | ..            |
| Prince Edward Island..... | 2,384 <sup>1</sup>  | ..            | 2,495 <sup>1</sup>  | ..            | 3,031 <sup>1</sup>  | ..            |
| Nova Scotia.....          | 26,221 <sup>1</sup> | 612           | 31,736 <sup>1</sup> | 829           | 37,494 <sup>1</sup> | 1,129         |
| New Brunswick.....        | 26,852              | 201           | 32,854              | 669           | 37,402              | 652           |
| Quebec.....               |                     |               |                     |               |                     |               |
| Ontario.....              | 295,143             | 16,517        | 348,568             | 15,907        | 421,843             | 13,196        |
| Manitoba.....             | 42,972              | 7,701         | 46,735              | 8,032         | 52,896              | 7,569         |
| Saskatchewan.....         | 31,645              | ..            | 35,013              | ..            | 41,038              | ..            |
| Alberta.....              | 65,535              | ..            | 76,364              | ..            | 103,317             | ..            |
| British Columbia.....     | 95,016              | 16,251        | 110,162             | 17,040        | 116,299             | 17,001        |
| <b>Totals.....</b>        | <b>585,768</b>      | <b>41,282</b> | <b>687,239</b>      | <b>42,477</b> | <b>816,909</b>      | <b>39,547</b> |
| <b>Grand Totals.....</b>  | <b>627,050</b>      |               | <b>729,716</b>      |               | <b>856,456</b>      |               |

<sup>1</sup> Exclusive of rural schools.

*The extensive public services now accepted as indispensable by the urban dweller increase in complexity with the growth of the municipality so that in the larger cities the organization, provision and maintenance of such services as water, light, streets, playgrounds, fire and police protection, etc., constitute a large-scale business.*



# Municipal Bonded Debt and Sinking Funds, Certain Years 1919-47, and by Provinces, 1932, 1949 and 1950

| Year      | Gross Bonded Indebtedness | Total Sinking Funds  | Province                  | Gross Bonded Indebtedness |                            |                            |
|-----------|---------------------------|----------------------|---------------------------|---------------------------|----------------------------|----------------------------|
|           |                           |                      |                           | 1932 <sup>1</sup>         | 1949 <sup>2</sup>          | 1950 <sup>2</sup>          |
|           | \$'000                    | \$'000               |                           | \$'000                    | \$'000                     | \$'000                     |
| 1919..... | 729,715                   | 8                    | Newfoundland.....         | ..                        | 3,001                      | 3,001                      |
| 1925..... | 1,015,950                 | 8                    | Prince Edward Island..... | 2,129                     | 3,327                      | 3,302                      |
| 1930..... | 1,271,390                 | 8                    | Nova Scotia.....          | 31,606                    | 39,321                     | 42,797                     |
| 1935..... | 1,372,026                 | 267,709              | New Brunswick.....        | 24,753                    | 37,076                     | 41,402                     |
| 1938..... | 1,302,201                 | 269,736              | Quebec.....               | 463,614                   | ..                         | ..                         |
| 1939..... | 1,280,856                 | 272,010              | Ontario.....              | 504,756                   | 292,542                    | 363,578                    |
| 1940..... | 1,244,001                 | 259,343              | Manitoba.....             | 92,471                    | 55,059                     | 55,038                     |
| 1941..... | 1,196,491                 | 261,459              | Saskatchewan.....         | 59,238                    | 30,141                     | 32,035                     |
| 1942..... | 1,136,897                 | 258,064              | Alberta.....              | 76,892                    | 63,185                     | 80,428                     |
| 1943..... | 1,074,777                 | 254,864              | British Columbia.....     | 129,333                   | 137,618                    | 146,351                    |
| 1944..... | 1,006,936                 | 178,780              |                           |                           |                            |                            |
| 1945..... | 965,450                   | 168,365              |                           |                           |                            |                            |
| 1946..... | 503,426 <sup>4</sup>      | 118,964 <sup>4</sup> |                           |                           |                            |                            |
| 1947..... | 515,066 <sup>4</sup>      | 119,063 <sup>4</sup> |                           |                           |                            |                            |
|           |                           |                      | <b>Totals.....</b>        | <b>1,384,792</b>          | <b>661,270<sup>4</sup></b> | <b>767,932<sup>4</sup></b> |

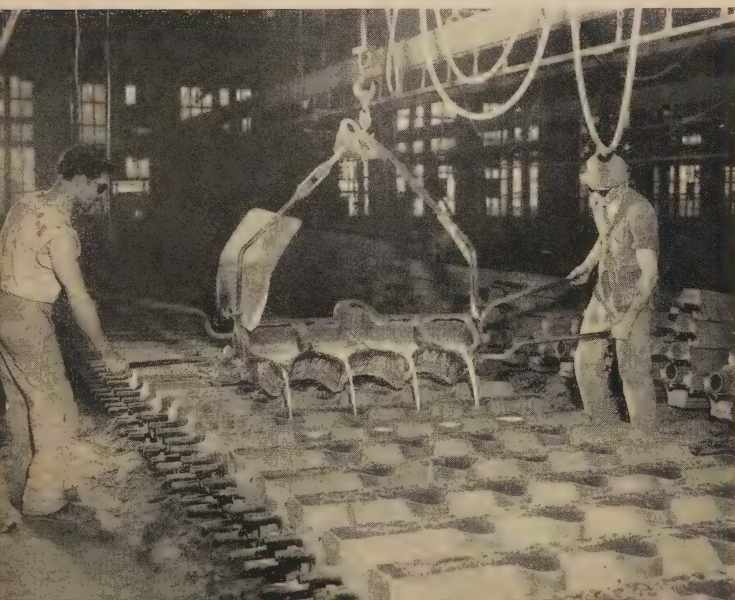
<sup>1</sup> Debt for rural schools in the Maritimes not included. <sup>2</sup> Excludes rural schools in Prince Edward Island and Nova Scotia. <sup>3</sup> Sinking fund totals not available previous to 1934; Alberta showed net debt to 1928. <sup>4</sup> Does not include Quebec.

## • Banking

The Canadian banking system is a strong and stable structure with many outstanding features that have grown up since its foundations were laid more than a century ago. It consists of the Bank of Canada, which is a government-owned central bank, and ten privately owned commercial banks\* competing among themselves for the domestic and foreign banking business of the Canadian people.

The Bank of Canada is the keystone of the structure. It was incorporated in 1934 as a central bank to regulate credit and currency, to control and protect the external value of the Canadian dollar and to stabilize the level of

\* An Act incorporating an additional chartered bank, the Mercantile Bank of Canada, was passed on Feb. 5, 1953.



Medium and long-term capital required by small enterprises is available through the facilities of the Industrial Development Bank.



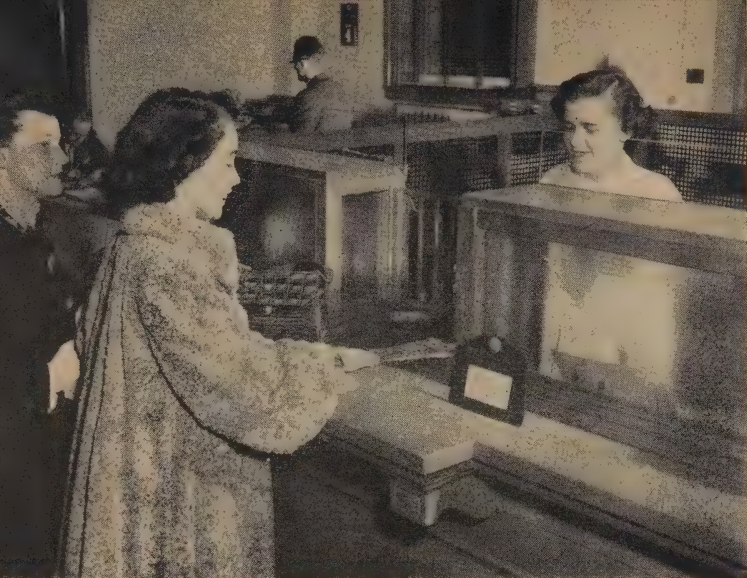
production, trade, prices and employment so far as may be possible within the scope of monetary action. The Bank acts as the fiscal agent of the Government of Canada, manages the public debt and has the sole right to issue notes for circulation in Canada. It is empowered to buy and sell securities on the open market; to discount securities and commercial bills; to fix minimum rates at which it will discount; and to buy and sell bullion and foreign exchange. The Bank is managed by a Board of Directors appointed by the Government and composed of a Governor, a Deputy Governor and 12 Directors, the Deputy Minister of Finance being a member of the Board.

The Industrial Development Bank, established in 1944, is a subsidiary of the Bank of Canada but operates as a separate entity. Its function is to supplement the activities of the chartered banks and other lending agencies by supplying the medium and long-term capital needs of small enterprises; the bank does not engage in the business of deposit banking. The extent of its operations is indicated by the following figures.

***Loans, Investments and Guarantees of the Industrial Development Bank, by Provinces and Industries, as at Sept. 30, 1952***

| Classification                            | Author-<br>ized   | Out-<br>standing  | Classification                                          | Author-<br>ized   | Out-<br>standing  |
|-------------------------------------------|-------------------|-------------------|---------------------------------------------------------|-------------------|-------------------|
|                                           | \$                | \$                |                                                         | \$                | \$                |
| <b>Province</b>                           |                   |                   | <b>Industrial Enterprise—concl.</b>                     |                   |                   |
| Newfoundland.....                         | —                 | —                 | Paper products (incl. pulp).....                        | 4,335,600         | 4,004,988         |
| P.E. Island.....                          | 90,000            | 55,691            | Printing, publishing and allied industries              | 710,000           | 374,138           |
| Nova Scotia.....                          | 671,182           | 429,755           | Iron and steel products (incl. machinery and equipment) | 5,064,462         | 3,136,606         |
| New Brunswick.....                        | 1,337,721         | 982,260           | Transportation equipment.....                           | 2,673,664         | 1,990,661         |
| Quebec.....                               | 21,754,259        | 14,847,927        | Non-ferrous metal products.....                         | 448,500           | 228,193           |
| Ontario.....                              | 11,820,949        | 8,169,533         | Electrical apparatus and supplies.....                  | 1,060,100         | 692,749           |
| Manitoba.....                             | 1,582,250         | 790,469           | Non-metallic mineral products.....                      | 2,481,461         | 1,777,568         |
| Saskatchewan.....                         | 3,618,848         | 1,331,460         | Products of petroleum and coal.....                     | 2,880,000         | 776,661           |
| Alberta.....                              | 2,485,200         | 1,035,058         | Chemical products...                                    | 6,994,343         | 4,738,824         |
| British Columbia and the Territories..... | 7,279,185         | 5,969,779         | Miscellaneous manufacturing industries                  | 740,000           | 494,002           |
| <b>Totals.....</b>                        | <b>49,639,594</b> | <b>33,611,932</b> | Refrigeration.....                                      | 3,630,803         | 2,589,191         |
| <b>Industrial Enterprise</b>              |                   |                   | Generation or distribution of electricity               | 250,000           | —                 |
| Foods and beverages...                    | 5,506,092         | 3,622,682         | Commercial air services.....                            | 100,000           | —                 |
| Leather products.....                     | 887,500           | 420,173           | <b>Totals.....</b>                                      | <b>49,639,594</b> | <b>33,611,932</b> |
| Textile products (except clothing).....   | 3,076,659         | 2,440,170         |                                                         |                   |                   |
| Clothing (textile and fur).....           | 1,354,150         | 862,156           |                                                         |                   |                   |
| Wood products.....                        | 7,446,260         | 5,463,170         |                                                         |                   |                   |

The commercial banks of Canada, whose main function is to provide a safe repository for savings and surplus funds and to furnish credit for carrying on the business of the country, have developed branch-banking to a high degree. The ten banks in operation have branches across Canada, offices in many foreign countries and banking correspondents throughout the world. This type of system is particularly suited to a country such as Canada, vast in area and with a small but expanding population and an active foreign trade. Every community, regardless of location or size, is served by a branch of at least one bank through which the resources and facilities of a nation-wide institution are available. There are now 3,846 branches in Canada's ten



*Canadian banks are strong and stable institutions that have long ago earned the confidence of the people. It is many years since a Canadian bank failed or since a depositor in a Canadian bank lost any part of his money.*

provinces, as well as 112 offices in foreign countries, mostly in the United States, the United Kingdom, and Central and South America.

Canadian commercial banks are called 'chartered' because they receive a charter or licence from the Federal Government. They operate under one federal statute—the Bank Act. This Act is revised every ten years after public hearings by the Banking and Commerce Committee of the House of Commons, with the result that banking in Canada never becomes static or rigid but is adaptable to new needs, safeguards and economic conditions. The charters of the Canadian banks extend for only ten years and must be renewed at each decennial revision. An officer of the Department of Finance inspects the books and loans and securities of each bank once a year and may do so oftener. This inspection is in addition to that carried out by auditors appointed by the shareholders and reporting to them, and the continuous inspection by the banks' internal auditors.

Although Canadian banks are subject to close regulation by federal authorities, they are uncontrolled in their day-to-day business. Competition among them is keen. There is competition for deposits, loans and general banking services and competition in the opening of new branches, not only in the cities but in frontier areas. In the past ten years, 486 new branches have been opened in various parts of Canada as the demands of a larger population and newly developed areas became evident.

The branch bank is a self-contained unit. It operates under the general supervision of its head office but has a full range of banking services, whether in a city or in a rural hamlet. The strength of the whole institution stands behind each branch, which is fully responsible for its commitments and undertakings. Excess funds from branches where deposits exceed loan requirements are credited to head office which, in turn, makes them available to branches where lending funds are needed. In this way, there can be no dearth of credit through lack of local funds.

The chartered banks are privately owned, there being 60,000 shareholders of the ten institutions, most of them Canadians. In 1952, the shareholders' investment in the banks totalled \$381,400,000 and dividends averaged 4·9 p.c. There has been no bank failure since 1923 and note holders have experienced no losses whatever since 1881.

### Statistics of Chartered Banks, Certain Years, 1930-52

NOTE.—These figures are averages computed from the twelve monthly returns in each year, except in the case of the numbers of branches which are as at Dec. 31.

| Bank and Year | Branches<br>in<br>Canada<br>and<br>Abroad <sup>1</sup> | Total<br>Assets | Liabili-<br>ties to<br>Share-<br>holders | Liabili-<br>ties to<br>the<br>Public | Loans<br>and Dis-<br>counts | Total<br>Deposit<br>Liabi-<br>lities <sup>2</sup> |
|---------------|--------------------------------------------------------|-----------------|------------------------------------------|--------------------------------------|-----------------------------|---------------------------------------------------|
|               | No.                                                    | \$<br>'000,000  | \$<br>'000,000                           | \$<br>'000,000                       | \$<br>'000,000              | \$<br>'000,000                                    |
| 1930.....     | 4,246                                                  | 3,237           | 305                                      | 2,910                                | 2,065                       | 2,517                                             |
| 1939.....     | 3,459                                                  | 3,592           | 279                                      | 3,298                                | 1,244                       | 3,061                                             |
| 1945.....     | 3,240                                                  | 6,743           | 282                                      | 6,439                                | 1,505                       | 6,160                                             |
| 1948.....     | 3,551                                                  | 8,140           | 328                                      | 7,799                                | 2,389                       | 7,403                                             |
| 1949.....     | 3,658                                                  | 8,658           | 333                                      | 8,310                                | 2,618                       | 7,922                                             |
| 1950.....     | 3,784                                                  | 9,015           | 337                                      | 8,660                                | 2,872                       | 8,221                                             |
| 1951.....     | 3,871                                                  | 9,385           | 347                                      | 9,020                                | 3,496                       | 8,465                                             |
| 1952.....     | 3,958                                                  | 9,760           | 360                                      | 9,384                                | 3,608                       | 8,899                                             |

<sup>1</sup> Includes sub-agencies which numbered 710 in 1952, including 6 outside Canada.

<sup>2</sup> Excludes inter-bank deposits.

### Statistics of Individual Chartered Banks, December 1952

| Bank                                | Branches<br>in<br>Canada<br>and<br>Abroad <sup>1</sup> | Total<br>Assets       | Liabilities<br>to<br>Shareholders | Liabilities<br>to the<br>Public | Loans<br>and<br>Discounts | Total<br>Deposit<br>Liabilities <sup>2</sup> |
|-------------------------------------|--------------------------------------------------------|-----------------------|-----------------------------------|---------------------------------|---------------------------|----------------------------------------------|
|                                     | No.                                                    | \$<br>'000,000        | \$<br>'000,000                    | \$<br>'000,000                  | \$<br>'000,000            | \$<br>'000,000                               |
| Bank of Montreal....                | 589                                                    | 2,317,199,942         | 2,316,497,081                     | 382,861                         | 748,375,208               | 2,119,002,785                                |
| Bank of Nova Scotia..               | 408                                                    | 939,593,344           | 935,841,435                       | 762,725                         | 452,448,749               | 843,429,402                                  |
| Bank of Toronto.....                | 240                                                    | 535,101,419           | 533,063,800                       | 28,360                          | 198,205,947               | 492,325,697                                  |
| Provincial Bank of<br>Canada.....   | 346                                                    | 192,754,947           | 192,118,982                       | 79,447                          | 67,493,511                | 180,615,727                                  |
| Canadian Bank of<br>Commerce.....   | 634                                                    | 1,845,750,364         | 1,844,096,308                     | 535,985                         | 749,635,420               | 1,682,666,892                                |
| Royal Bank.....                     | 780                                                    | 2,711,417,792         | 2,710,637,553                     | 1,912,250                       | 975,442,826               | 2,478,518,824                                |
| Dominion Bank.....                  | 174                                                    | 511,003,968           | 509,844,964                       | 568,362                         | 238,166,992               | 460,735,423                                  |
| Banque Canadienne<br>Nationale..... | 555                                                    | 484,212,776           | 483,811,684                       | 41,452                          | 186,069,274               | 461,334,834                                  |
| Imperial Bank of<br>Canada.....     | 228                                                    | 588,204,254           | 586,989,513                       | 147,549                         | 254,876,117               | 545,247,356                                  |
| Barclays Bank<br>(Canada).....      | 4                                                      | 32,111,441            | 31,918,271                        | —                               | 9,013,024                 | 22,366,076                                   |
| <b>Totals.....</b>                  | <b>3,958</b>                                           | <b>10,157,350,247</b> | <b>10,144,819,591</b>             | <b>4,458,991</b>                | <b>3,879,727,068</b>      | <b>9,286,243,016</b>                         |

<sup>1</sup> Includes sub-agencies which numbered 710, including 6 outside of Canada.

<sup>2</sup> Excludes inter-bank deposits.

**Volume of Money.**—In recent years, the Bank of Canada has developed a presentation of statistics concerning the public holdings of certain liquid assets. These include notes and coin outside the banks, active and inactive bank deposits, and also Government of Canada securities which, though not used to make payments, are forms in which the public holds its liquid funds. Figures for alternate years from 1938 are given in the following table.



# General Public Holdings of Certain Liquid Assets, as at Dec. 31 of Alternate Years, 1938-52

(Millions of dollars)

| Dec. 31—  | Currency and Active Bank Deposits | Inactive Chartered Bank Notice Deposits <sup>1</sup> | Government of Canada Securities <sup>2</sup> | Total  |
|-----------|-----------------------------------|------------------------------------------------------|----------------------------------------------|--------|
| 1938..... | 1,131                             | 1,472                                                | 3,228                                        | 5,831  |
| 1940..... | 1,563                             | 1,438                                                | 3,670                                        | 6,671  |
| 1942..... | 2,349                             | 1,436                                                | 5,344                                        | 9,129  |
| 1944..... | 3,153                             | 2,060                                                | 9,131                                        | 14,344 |
| 1946..... | 3,996                             | 2,856                                                | 11,175                                       | 18,027 |
| 1948..... | 4,335                             | 3,408                                                | 10,249                                       | 17,992 |
| 1950..... | 4,851                             | 3,861                                                | 10,066                                       | 18,778 |
| 1951..... | 4,843                             | 3,894                                                | 9,388                                        | 18,125 |
| 1952..... | 5,173                             | 4,129                                                | 9,062                                        | 18,365 |

<sup>1</sup> Estimated aggregate minimum quarterly balances in chartered bank personal savings deposits in Canada plus non-personal notice deposits in Canada. <sup>2</sup> Holdings of all investors other than the Bank of Canada, chartered banks and Government of Canada accounts.

**Cheque Payments.**—Business operations consist of innumerable individual transactions, the great majority of which employ money either in the form of currency or as cheques drawn against bank deposits. It is estimated that about 80 p.c. of the commercial transactions are financed by cheque, the value of which serves as an excellent index of the business trend at any given time.

The record-breaking trend in the value of cheques cashed was continued in 1952. The total value of payments in 35 Canadian centres amounted to \$125,196,894,021, 11·6 p.c. greater than in 1951 and the highest aggregate ever recorded. The advance reflected a high level of economic activity. Payment of salaries and wages rose sharply, due to an increase in rates and, to a lesser extent, in numbers employed. Advances were also recorded in the value of retail and wholesale sales. In addition, the levels of the physical volume of industrial production averaged moderately higher in 1952 than in the preceding year. By contrast the general index of wholesale prices was about 6 p.c. below 1951.

The increase in payments in 1952 was fairly general throughout the country with 31 of the 35 centres showing a gain over 1951, although the magnitude of these advances varied greatly. On a regional basis, the Prairie Provinces showed the largest increase with a gain of nearly 17 p.c. over 1951. Ontario and British Columbia followed with advances of about 12 p.c. each, while Quebec recorded a gain of 8·5 p.c., and the Atlantic Provinces a gain of 6 p.c. Cheques cashed in Canada's five largest clearing centres of Toronto, Montreal, Winnipeg, Vancouver and Ottawa now account for more than 75 p.c. of the Canadian total and largely determine the regional trends with the exception of those of the Atlantic Provinces. Payments in the two largest centres, Toronto and Montreal, rose 13·4 p.c. and 8·7 p.c., respectively.

The Canadian aggregate value of cheques cashed has shown a continuous series of increases since 1938, the level reached in 1952 having been above that of any previous year. The total was 305 p.c. greater than in 1938 and 168 p.c. above the inter-war record achieved in 1929.



The ten chartered banks in Canada have branches all across the country. Each branch, while operating under the general supervision of its head office, is a self-contained unit offering a full range of banking services and fully responsible for its own commitments.

### Cheques Cashed at Clearing-House Centres, 1948-52

| Economic Area                       | 1948           | 1949           | 1950            | 1951            | 1952            |
|-------------------------------------|----------------|----------------|-----------------|-----------------|-----------------|
|                                     | \$             | \$             | \$              | \$              | \$              |
| Atlantic Provinces <sup>1</sup> ... | 1,970,079,395  | 2,317,673,928  | 2,648,160,641   | 2,888,445,151   | 3,066,364,735   |
| Quebec.....                         | 23,689,833,048 | 24,732,489,732 | 29,106,858,312  | 32,728,719,454  | 35,494,559,222  |
| Ontario.....                        | 33,381,605,192 | 36,469,080,580 | 43,146,166,945  | 47,046,956,487  | 52,717,444,206  |
| Prairie Provinces...                | 14,602,310,298 | 16,494,526,390 | 17,287,706,202  | 19,574,933,117  | 22,807,514,530  |
| British Columbia...                 | 7,043,619,628  | 7,540,592,213  | 8,446,566,739   | 9,945,578,848   | 11,111,011,328  |
| Totals <sup>1</sup> ...             | 80,687,447,561 | 87,554,362,843 | 100,635,458,839 | 112,184,633,057 | 125,196,894,021 |

<sup>1</sup> Data for St. John's, Nfld., are included from April 1949.

## • Insurance

**Life Insurance.**—Life insurance business in Canada in 1951 continued the ever-increasing rate of expansion in evidence particularly since the end of World War II. The sale of life insurance, which combines both protection and savings, has been greatly influenced by the international unrest experienced

during these years—uncertainty stimulates the human instinct to conserve against a time of emergency. Also Canada's impressive industrial expansion and the prevalent trend towards individual security has strengthened the demand for the services and protection of life insurance. During 1951, new business written, including industrial and group insurance, amounted to \$2,164,000,000, which brought the total life insurance in force in Canada at the end of the year to \$18,234,000,000. This represents an average of \$1,302 of insurance protection for every man, woman and child in the country. The amount of premiums paid to carry this insurance was \$416,000,000. Total benefits paid during the year to policyholders, including death claims, matured endowments, disability claims, dividends, surrender values and annuity payments were over \$260,000,000. Life insurance in Canada is actively transacted by 58 companies registered by the Federal Government, of which 31 are Canadian, 5 British and 22 foreign. There are also a few companies operating under provincial licence only.

**Fire Insurance.**—The growth of the fire insurance business has also been phenomenal and, though a good part of this growth may be attributed to the increase in the practice of insurance, it is also indicative of the advance in the amount and value of insurable property throughout the country. Fire insurance in force at the end of 1951 amounted to approximately \$37,000,000,000, premiums written amounted to \$151,000,000, and claims paid to \$60,000,000. At the end of 1951 there were 284 companies registered by the Federal Government transacting fire insurance business in Canada: 69 of these were Canadian companies, 84 British and 131 foreign.

**Casualty Insurance.**—Casualty insurance includes: accident (personal accident employers' liability and public liability); aircraft; automobile; boiler; credit; earthquake; explosion; falling aircraft; forgery; guarantee; hail; impact by vehicles; inland transportation; live stock; personal property; plate glass; real property; sickness; sprinkler leakage; theft; water damage; weather; and windstorm.

The classes of casualty business accounting for the largest and most rapidly increasing premium income are automobile, personal accident and sickness, and personal property. Premiums written for these classes amounted to \$198,000,000 in 1951, and those for all classes of casualty to \$259,000,000. In 1951 there were 292 companies transacting casualty business, of which 70 were Canadian, 78 British and 144 foreign. The majority of these companies also reported fire business.

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# Index

|                                               | PAGE                        |                                      | PAGE               |
|-----------------------------------------------|-----------------------------|--------------------------------------|--------------------|
| Act, British North America.....               | 81, 85                      | British Columbia, fur production.... | 202, 204           |
| — Canadian Citizenship.....                   | 75                          | — manufactures.....                  | 215, 217           |
| — Emergency Gold Mines Assistance             | 14                          | — minerals.....                      | 191                |
| — Family Allowances.....                      | 93                          | — old age pensions and assistance..  | 94, 95             |
| — Immigration.....                            | 74                          | — pensions for the blind.....        | 96                 |
| — Indian.....                                 | 71                          | — physical features.....             | 51                 |
| — Industrial Relations and Disputes           |                             | — fitness aid.....                   | 96                 |
| Investigation.....                            | 236-7                       | — population.....                    | 63, 66, 68, 69, 70 |
| — National Housing.....                       | 14, 19                      | — production.....                    | 140, 141           |
| — Physical Fitness.....                       | 96                          | — water power.....                   | 169, 170, 173      |
| — Old Age Assistance.....                     | 94                          | Budget, Federal, 1952-53.....        | 13, 300            |
| — Security.....                               | 94                          | Building construction.....           | 18-9, 222-3, 225   |
| — Pension.....                                | 102-3                       | Butter and cheese.....               | 160, 162, 210, 211 |
| Acts, veterans welfare.....                   | 100, 101, 102               |                                      |                    |
| Adult education.....                          | 111-2                       | Cables and telegraphs.....           | 256                |
| Age and sex, population by.....               | 67                          | Canada, Bank of.....                 | 310, 313-4         |
| Agricultural assistance Acts.....             | 13, 148-9                   | — and the Korean conflict.....       | 39-40              |
| — regions.....                                | 143-5                       | — physical features of.....          | 51-6               |
| — statistics.....                             | 143-4, 149-67, 230-1, 273-4 | Canada's diplomatic service.....     | 33-4, 44           |
| Air agreements, international.....            | 254-6                       | — external relations.....            | 33-45              |
| — mail service.....                           | 263                         | — relations with Commonwealth....    | 40-1               |
| Alberta, agriculture. 143, 144, 151, 152, 159 |                             | — foreign countries.....             | 42-5               |
| — births, deaths and marriages.....           | 79                          | Canadian Broadcasting Corporation..  | 257-62             |
| — employment, index numbers of....            | 232                         | — Farm Loan Board.....               | 149                |
| — family allowances.....                      | 93                          | Canals.....                          | 250-1              |
| — finance.....                                | 304, 306, 308, 310          | Capital expenditures.....            | 207-8, 221-7       |
| — fisheries.....                              | 198                         | — movements.....                     | 16-8, 291          |
| — forestry.....                               | 182                         | Casualty insurance.....              | 316                |
| — fur production.....                         | 202                         | Census of population.....            | 63-70, 72          |
| — manufactures.....                           | 216, 217                    | Central electric stations.....       | 175                |
| — minerals.....                               | 190, 191                    | Chain stores.....                    | 267-8, 270         |
| — old age pensions and assistance....         | 94, 95                      | Chartered banks.....                 | 310-3              |
| — pensions for the blind.....                 | 96                          | Cheese and butter.....               | 160, 162, 211      |
| — physical features.....                      | 51, 53                      | Cheque payments.....                 | 314-5              |
| — fitness aid.....                            | 96                          | Cities and towns, manufacturing in.. | 218                |
| — population.....                             | 63, 64, 66, 68, 69, 70      | — population of.....                 | 64-5               |
| — production.....                             | 140, 141                    | Citizenship.....                     | 75-6               |
| — water power.....                            | 169, 170, 174               | Civil aviation.....                  | 251-6              |
| Allowances for the blind.....                 | 95-6                        | Climate.....                         | 56-61              |
| — family.....                                 | 72, 73, 93                  | Collective bargaining.....           | 236-7, 238         |
| — mothers.....                                | 97-9                        | Colleges and universities.....       | 107-8              |
| — veterans.....                               | 102-3                       | Colombo Plan.....                    | 42-3               |
| Animals, live stock.....                      | 158-9                       | Commonwealth Prime Ministers'        |                    |
| Annuities, Government.....                    | 241                         | Conferences.....                     | 40-1               |
| Arctic weather stations.....                  | 59-61                       | Communications.....                  | 231, 256-63        |
| Arts, Letters and Sciences, Royal             |                             | Compensation, workmen's.....         | 99                 |
| Commission on.....                            | 119, 126, 258               | Construction.....                    | 222-3, 224, 225-6  |
| — creative.....                               | 119-26                      | — employment in.....                 | 223, 231           |
| Atomic energy research activities.....        | 117                         | — hydro-electric during 1952.....    | 170-5              |
| Automobile industry.....                      | 12, 210, 211                | Consumer price index.....            | 19, 275-6          |
| — registration and supply.....                | 248                         | — credit, retail.....                | 268-70             |
| — sales and financing.....                    | 211, 266-7                  | Co-operative associations.....       | 272-3              |
| Aviation, civil.....                          | 251-6                       | Corporation taxes.....               | 14, 300, 301       |
|                                               |                             | Cost-of-living index.....            | 275-6              |
| Ballet.....                                   | 120-1                       | Crops, field.....                    | 153-8              |
| Bank, Industrial Development.....             | 310, 311                    | — special.....                       | 164-7              |
| — of Canada.....                              | 310, 313-4                  | Customs duties, receipts from.....   | 299                |
| Banking.....                                  | 310-5                       |                                      |                    |
| — commercial.....                             | 310-3                       | Dairy production.....                | 160-2              |
| Barley production, value, etc.....            | 156-7, 158                  | Deaths.....                          | 77-8, 79           |
| Birthplaces of population.....                | 67-8                        | Debt, combined government.....       | 296-8              |
| Births.....                                   | 77, 79                      | — federal.....                       | 297, 298, 300      |
| Blind, pensions for the.....                  | 94, 95-6                    | — municipal.....                     | 297, 310           |
| Borrowings, federal.....                      | 300                         | — provincial.....                    | 297, 305-6         |
| Bread and bakery industry.....                | 210, 211                    | Defence appropriations.....          | 14                 |
| British Columbia, agriculture.. 144, 151, 159 |                             | — expenditure.....                   | 14, 300            |
| — births, deaths and marriages.....           | 79                          | Diplomatic service.....              | 33-4, 44           |
| — employment, index numbers of....            | 232                         | Domestic trade.....                  | 265-76             |
| — family allowances.....                      | 93                          | Dominion finance.....                | 295-302            |
| — finance.....                                | 304, 306, 308, 310          | Drama.....                           | 121-2              |
| — fisheries.....                              | 196, 197, 198               | Dwelling units.....                  | 69-70, 225-6       |
| — forestry.....                               | 182, 184                    |                                      |                    |

|                                        | PAGE                          |                                                          | PAGE                       |
|----------------------------------------|-------------------------------|----------------------------------------------------------|----------------------------|
| Earnings and hours.....                | 219, 232-6                    | Honey production.....                                    | 166                        |
| Economic conditions 1952.....          | 9-19                          | Hospitals and sanatoria.....                             | 89-91, 100                 |
| — measures, government.....            | 12-4                          | Hours and earnings.....                                  | 219, 232-6                 |
| Education.....                         | 72-3, 105-12, 308             | House of Commons.....                                    | 82-4                       |
| Egg production.....                    | 163                           | Households and families.....                             | 69-70                      |
| Electric power.....                    | 169-75                        | Housing Act, National.....                               | 14, 19                     |
| — export of.....                       | 175                           | Humanities and social sciences.....                      | 126                        |
| — production, values of.....           | 140                           | Hydro-electric construction, 1952....                    | 170-5                      |
| Employment.....                        | 11, 22, 231-2                 | — power production.....                                  | 169-75                     |
| — in construction.....                 | 223, 231                      |                                                          |                            |
| — in manufactures.....                 | 207, 218-9, 231               | Immigration.....                                         | 73-4                       |
| — Service, National.....               | 240                           | Imports.....                                             | 15, 135-6, 205, 279-89     |
| Eskimos.....                           | 72-3, 93, 105                 | Income, farm.....                                        | 134, 149-52, 162           |
| Excess profits tax.....                | 299, 301                      | — national.....                                          | 133-8                      |
| Excise duties, receipts from.....      | 14, 299                       | — personal.....                                          | 11-2, 136-8                |
| Expenditures, capital.....             | 207-8, 221-7                  | — tax.....                                               | 12, 299, 300-2             |
| — combined government.....             | 295-6                         | Indians.....                                             | 70-2, 105, 108             |
| — federal.....                         | 14, 135, 295, 296, 298-300    | Industrial Relations and Disputes Investigation Act..... | 236-7                      |
| — gross national.....                  | 133, 134-6                    | Industries, forest.....                                  | 180-4                      |
| — municipal.....                       | 295, 296, 307-8               | — manufacturing.....                                     | 138-41, 208-18             |
| — personal.....                        | 12, 136-8                     | Infant mortality.....                                    | 78                         |
| — provincial.....                      | 108, 295, 296, 302-5          | Insurance, casualty.....                                 | 316                        |
| Exports.....                           | 14-6, 135-6, 146, 205, 279-89 | — fire.....                                              | 316                        |
| — newsprint.....                       | 184                           | — life.....                                              | 315-6                      |
| — wheat.....                           | 154                           | — unemployment.....                                      | 97, 238-40                 |
| External relations, Canada's.....      | 33-45                         | International activities, Canada's.....                  | 42-5, 193                  |
|                                        |                               | — air agreements.....                                    | 254-6                      |
| Families and households.....           | 69-70                         | — payments, balance of.....                              | 289-92                     |
| Family allowances.....                 | 72, 73, 93                    | Investment.....                                          | 16-9, 134, 135, 221-7, 291 |
| Farm loans.....                        | 148, 149                      | Iron and steel industries.....                           | 210, 212                   |
| — prices, index numbers of.....        | 152                           |                                                          |                            |
| Farmers, services for.....             | 146-9, 260                    | Judiciary.....                                           | 83-4                       |
| Federal borrowings.....                | 300                           |                                                          |                            |
| — debt.....                            | 296-8                         | Korean conflict, Canada and.....                         | 39-40, 100                 |
| — expenditures.....                    | 14, 135, 295, 296, 298-300    |                                                          |                            |
| — health services.....                 | 87-8, 90                      | Labour.....                                              | 229-41                     |
| — revenue.....                         | 14, 295, 298-300              | — force.....                                             | 10, 229-31                 |
| — welfare services.....                | 92-7                          | — wages and hours of.....                                | 219, 232-6                 |
| Field crops, area, yield, etc.....     | 153-8                         | — legislation.....                                       | 235-7                      |
| Finance, public.....                   | 14, 295-8                     | Languages of population.....                             | 68-9                       |
| — federal.....                         | 14, 295-302                   | Liabilities, Federal Government.....                     | 297, 300                   |
| — municipal.....                       | 295-8, 307-10                 | — of municipal governments.....                          | 297, 308                   |
| — provincial.....                      | 295-8, 302-6                  | — of provincial governments.....                         | 297, 305-6                 |
| Financing of education.....            | 108-11, 307, 308              | Libraries.....                                           | 127-8                      |
| Fire insurance.....                    | 316                           | Life insurance.....                                      | 315-6                      |
| Fisheries.....                         | 193-9                         | Live stock.....                                          | 13-4, 158-9                |
| — production, statistics of.....       | 139, 140, 197-9               | Loans, farm.....                                         | 148, 149                   |
| Flaxseed, production and value of..... | 157-8                         | — housing.....                                           | 14, 18-9                   |
| Foreign trade.....                     | 14-6, 249, 279-93             | — veterans.....                                          | 101, 102                   |
| Forest administration.....             | 177-8                         | Lumbering operations.....                                | 177-84, 210, 212           |
| — industries.....                      | 180-4                         |                                                          |                            |
| Forestry.....                          | 177-85, 231                   | Manitoba.....                                            | 144, 151, 152, 159         |
| — production.....                      | 140, 177-84                   | — births, deaths and marriages.....                      | 79                         |
| Fruit production.....                  | 164-6                         | — employment, index numbers of.....                      | 232                        |
| Fuels, production of.....              | 188                           | — family allowances.....                                 | 93                         |
| Fur farming.....                       | 203-4                         | — finance.....                                           | 304, 306, 308, 310         |
| — grading and marketing.....           | 204-5                         | — fisheries.....                                         | 198                        |
| — processing.....                      | 204                           | — forestry.....                                          | 182, 184                   |
| — resources and industry.....          | 201-2                         | — fur production.....                                    | 202                        |
|                                        |                               | — manufactures.....                                      | 215-6, 217                 |
| Government.....                        | 81-5                          | — minerals.....                                          | 190, 191                   |
| — annuities.....                       | 241                           | — old age pensions and assistance.....                   | 94, 95                     |
| — economic measures.....               | 12-4                          | — pensions for the blind.....                            | 96                         |
| — federal.....                         | 81-4, 85                      | — physical features.....                                 | 51, 52, 53                 |
| — municipal.....                       | 81, 85                        | — fitness aid.....                                       | 96                         |
| — provincial.....                      | 81, 84-5                      | — population.....                                        | 63, 66, 68, 69, 70         |
| — Territorial.....                     | 85                            | — production.....                                        | 140, 141                   |
| Grain crops.....                       | 153-8                         | — water power.....                                       | 169, 170, 174              |
| Gross national product.....            | 9, 133, 134, 221-2            | Manufactures.....                                        | 10, 138-41, 207-19         |
| — expenditure.....                     | 133, 134-6                    | — employment in.....                                     | 218-19, 231                |
| Harbours.....                          | 250                           | Maple products.....                                      | 166                        |
| Health agencies, non-governmental..... | 91-2                          | Marriages.....                                           | 78, 79                     |
| — national grant program.....          | 87, 88                        | Meat packing and slaughtering.....                       | 210, 211                   |
| — public.....                          | 73, 87-92                     | Merchandising.....                                       | 265-71                     |
| Highways and roads.....                | 246-7                         | Metallic minerals.....                                   | 22-4, 187, 188             |
| Historical development, Canadian.....  | 47-9                          | Milk production.....                                     | 160, 161-2                 |
| Home construction.....                 | 18-9                          | Mines and minerals.....                                  | 21-31, 187-91              |

|                                   | PAGE                          |
|-----------------------------------|-------------------------------|
| Mining development.....           | 14, 21-31                     |
| — production.....                 | 10, 29-31, 140, 187-91        |
| Mothers' allowances.....          | 97-9                          |
| Motion pictures and theatres..... | 131                           |
| Motor-carriers.....               | 248                           |
| — vehicles.....                   | 12, 210, 211, 247, 248, 266-7 |
| Municipal assessments.....        | 308                           |
| — finance.....                    | 295-8, 307-10                 |
| — health services.....            | 87, 88-9                      |
| Museums.....                      | 128-9                         |
| Music.....                        | 123-5                         |

|                                                    |                    |
|----------------------------------------------------|--------------------|
| National Capital Plan.....                         | 56                 |
| — debt.....                                        | 297-8, 300         |
| — Employment Service.....                          | 240                |
| — Film Board.....                                  | 131                |
| — Gallery of Canada.....                           | 123                |
| — Health and Welfare Dept. ....                    | 87, 92-3, 96-7     |
| — Housing Act.....                                 | 14, 19             |
| — income.....                                      | 133-8              |
| — parks.....                                       | 54-5               |
| — Research Council.....                            | 87, 112, 114-7     |
| Natural gas production.....                        | 24-5, 28           |
| — increase.....                                    | 78                 |
| New Brunswick, agriculture.....                    | 145, 151, 159      |
| — births, deaths and marriages.....                | 79                 |
| — employment, index numbers of.....                | 232                |
| — family allowances.....                           | 93                 |
| — finance.....                                     | 304, 306, 308, 310 |
| — fisheries.....                                   | 194-6, 198         |
| — forestry.....                                    | 182, 184           |
| — fur production.....                              | 202                |
| — manufactures.....                                | 216-7              |
| — minerals.....                                    | 190, 191           |
| — old age pensions and assistance.....             | 94, 95             |
| — pensions for the blind.....                      | 96                 |
| — physical features.....                           | 51, 52             |
| — fitness aid.....                                 | 96                 |
| — population.....                                  | 63, 66, 68, 69, 70 |
| — production.....                                  | 140, 141           |
| — water power.....                                 | 169, 170, 174-5    |
| Newfoundland, agriculture.....                     | 143                |
| — births, deaths and marriages.....                | 79                 |
| — family allowances.....                           | 93                 |
| — finance.....                                     | 304, 306, 308, 310 |
| — fisheries.....                                   | 194-6, 197         |
| — forestry.....                                    | 182, 184           |
| — manufactures.....                                | 216, 217           |
| — minerals.....                                    | 189-90, 191        |
| — old age pensions and assistance.....             | 94, 95             |
| — pensions for the blind.....                      | 96                 |
| — physical features.....                           | 51, 52             |
| — population.....                                  | 63, 66, 68, 69, 70 |
| — production.....                                  | 140                |
| — water power.....                                 | 169, 170, 175      |
| Newsprint.....                                     | 182-4, 210         |
| Non-ferrous smelting, refining.....                | 210, 211-2         |
| Non-metallic minerals.....                         | 24-30, 187, 188-9  |
| North Atlantic Treaty Organization.....            | 36                 |
| Northwest Territories, family allow-<br>ances..... | 93                 |
| — fisheries.....                                   | 198                |
| — forestry.....                                    | 182                |
| — fur production.....                              | 202                |
| — manufactures.....                                | 217                |
| — minerals.....                                    | 191                |
| — old age pensions and assistance.....             | 94, 95             |
| — pensions for the blind.....                      | 96                 |
| — physical features.....                           | 51, 54             |
| — fitness aid.....                                 | 96                 |
| — population.....                                  | 63, 66, 68, 69, 70 |
| — production.....                                  | 140                |
| — water power.....                                 | 169, 170           |
| Nova Scotia, agriculture.....                      | 145, 151, 152, 159 |
| — births, deaths and marriages.....                | 79                 |
| — employment, index numbers of.....                | 232                |
| — family allowances.....                           | 93                 |
| — finance.....                                     | 304, 306, 308, 310 |
| — fisheries.....                                   | 194-6, 198         |

|                               |                    |
|-------------------------------|--------------------|
| Nova Scotia, forestry.....    | 182, 184           |
| — fur production.....         | 202                |
| — manufactures.....           | 216, 217           |
| — minerals.....               | 190, 191           |
| — old age pensions.....       | 94, 95             |
| — pensions for the blind..... | 96                 |
| — physical features.....      | 51, 52             |
| — fitness aid.....            | 96                 |
| — population.....             | 63, 66, 68, 69, 70 |
| — production.....             | 140, 141           |
| — water power.....            | 169, 170, 175      |

|                                        |                      |
|----------------------------------------|----------------------|
| Oats, production, value, etc.....      | 153, 155-6, 158      |
| Oil pipe lines.....                    | 27-8                 |
| — production.....                      | 24-8                 |
| Old age pensions and security.....     | 92, 94-5             |
| Ontario, agriculture.....              | 144-5, 151, 152, 159 |
| — births, deaths and marriages.....    | 79                   |
| — employment, index numbers of.....    | 232                  |
| — family allowances.....               | 93                   |
| — finance.....                         | 304, 306, 308, 310   |
| — fisheries.....                       | 198                  |
| — forestry.....                        | 182, 183, 184        |
| — fur production.....                  | 202, 204             |
| — manufactures.....                    | 214, 217             |
| — minerals.....                        | 190, 191             |
| — old age pensions and assistance..... | 94, 95               |
| — pensions for the blind.....          | 96                   |
| — physical features.....               | 51, 52               |
| — fitness aid.....                     | 96                   |
| — population.....                      | 63, 66, 68, 69, 70   |
| — production.....                      | 140, 141             |
| — water power.....                     | 169, 170-2           |
| Origins of population.....             | 68                   |

|                                                      |                      |
|------------------------------------------------------|----------------------|
| Painting.....                                        | 122-3                |
| Paper production.....                                | 182-4, 210           |
| Parks.....                                           | 54-6                 |
| Pensions and assistance, old age.....                | 94, 95               |
| — for blind persons.....                             | 94, 95-6             |
| — war disability or death.....                       | 102-3                |
| Petroleum production.....                            | 24-6, 188, 210, 212  |
| Physical fitness.....                                | 96-7                 |
| Pipe lines.....                                      | 27-8, 226            |
| Population.....                                      | 63-79                |
| — Eskimo.....                                        | 72                   |
| — Indian.....                                        | 70                   |
| Ports.....                                           | 250                  |
| Postal service.....                                  | 262-3                |
| Poultry and eggs.....                                | 162-3                |
| Power, water.....                                    | 169-75               |
| Precipitation and temperatures.....                  | 58                   |
| Press, the.....                                      | 129-30               |
| Price index, consumer.....                           | 19, 275-6            |
| Prices, farm.....                                    | 152, 154-8, 160, 162 |
| — wholesale.....                                     | 19, 273-4            |
| Prime Ministers' Conferences, Com-<br>monwealth..... | 40-1                 |
| Prince Edward Island, agriculture.....               | 151, 159             |
| — births, deaths and marriages.....                  | 79                   |
| — employment, index numbers of.....                  | 232                  |
| — family allowances.....                             | 93                   |
| — finance.....                                       | 304, 306, 308, 310   |
| — fisheries.....                                     | 194-6, 198           |
| — forestry.....                                      | 182                  |
| — fur production.....                                | 202                  |
| — manufactures.....                                  | 216, 217             |
| — old age pensions and assistance.....               | 94, 95               |
| — pensions for the blind.....                        | 96                   |
| — physical features.....                             | 51, 52               |
| — fitness aid.....                                   | 96                   |
| — population.....                                    | 63, 66, 68, 69, 70   |
| — production.....                                    | 140, 141             |
| — water power.....                                   | 169, 170             |
| Product, gross national.....                         | 9, 133, 134, 221-2   |
| Production, agricultural 10, 139, 140, 153-67        |                      |
| — electric power.....                                | 140, 169-75          |
| — fisheries.....                                     | 139, 140, 193-9      |
| — forestry.....                                      | 140, 177-84          |
| — fur.....                                           | 140, 202-5           |



**INDEX—concluded**

|                                                        | PAGE                        |
|--------------------------------------------------------|-----------------------------|
| Production, grain.....                                 | 153-8                       |
| — manufacturing.....                                   | 10, 138-41, 207-18          |
| — mining.....                                          | 10, 22-31, 140, 141, 187-91 |
| — survey of.....                                       | 10, 138-41                  |
| Provincial bonded indebtedness.....                    | 306                         |
| — health services.....                                 | 87, 88-9, 90                |
| — parks.....                                           | 56                          |
| — public finance.....                                  | 295-8, 302-6                |
| — welfare services.....                                | 97-9                        |
| Public finance.....                                    | 14, 295-8                   |
| — health and welfare.....                              | 87-99                       |
| Pulp and paper industry.....                           | 182-4, 210                  |
| Quebec, agriculture.....                               | 144-5, 151, 152, 159        |
| — births, deaths and marriages.....                    | 79                          |
| — employment, index numbers of.....                    | 232                         |
| — family allowances.....                               | 93                          |
| — finance.....                                         | 304, 306, 308, 310          |
| — fisheries.....                                       | 194, 198                    |
| — forestry.....                                        | 182, 183, 184               |
| — fur production.....                                  | 202, 204                    |
| — manufactures.....                                    | 214-5, 217                  |
| — minerals.....                                        | 190, 191                    |
| — old age pensions and assistance.....                 | 94, 95                      |
| — pensions for the blind.....                          | 96                          |
| — physical features.....                               | 51, 52                      |
| — population.....                                      | 63, 66, 68, 69, 70          |
| — production.....                                      | 140, 141                    |
| — water power.....                                     | 169, 170, 172-3             |
| Radio and television.....                              | 130-1, 257-62               |
| Railways.....                                          | 244-6                       |
| Religious denominations.....                           | 69                          |
| Research, agricultural.....                            | 146-7                       |
| — atomic energy.....                                   | 117                         |
| — Council, National.....                               | 87, 112, 114-17             |
| — scientific.....                                      | 112-7, 146, 193             |
| Resources, agricultural.....                           | 143-5, 153-67               |
| — fishery.....                                         | 193-8                       |
| — forestry.....                                        | 177-84                      |
| — furs.....                                            | 201-5                       |
| — minerals.....                                        | 187-91                      |
| — water power.....                                     | 169-75                      |
| Retail trade.....                                      | 12, 265-70                  |
| — consumer credit.....                                 | 268-70                      |
| Revenue, combined government.....                      | 295                         |
| — federal.....                                         | 14, 295, 298-300            |
| — municipal.....                                       | 295, 307, 308               |
| — provincial.....                                      | 295, 302-4                  |
| Roads and highways.....                                | 246-7                       |
| Royal Commission on Arts, Letters<br>and Sciences..... | 119, 126, 258               |
| Rubber goods industry.....                             | 210, 213                    |
| Rural population.....                                  | 65-6                        |
| Rye, production, value, etc.....                       | 157, 158                    |
| St. Lawrence Seaway.....                               | 44                          |
| Saskatchewan, agriculture.....                         | 151, 152, 159               |
| — births, deaths and marriages.....                    | 79                          |
| — employment, index numbers of.....                    | 232                         |
| — family allowances.....                               | 93                          |
| — finance.....                                         | 304, 306, 308, 310          |
| — fisheries.....                                       | 198                         |
| — forestry.....                                        | 182                         |
| — fur production.....                                  | 202                         |
| — manufactures.....                                    | 216, 217                    |
| — minerals.....                                        | 190, 191                    |
| — old age pensions and assistance.....                 | 94, 95                      |
| — pensions for the blind.....                          | 96                          |
| — physical features.....                               | 51                          |
| — fitness aid.....                                     | 96                          |
| — population.....                                      | 63, 66, 68, 69, 70          |
| — production.....                                      | 140, 141                    |
| — water power.....                                     | 169, 170, 174               |
| Sawmilling industry.....                               | 210, 212                    |
| Schools.....                                           | 72, 105-8, 125-6            |
| Scientific research.....                               | 112-7, 146, 193             |
| Senate.....                                            | 82, 88                      |

|                                        | PAGE                   |
|----------------------------------------|------------------------|
| Shipping.....                          | 249-50                 |
| Slaughtering and meat packing.....     | 210, 211               |
| Social sciences and humanities.....    | 126                    |
| — security and welfare.....            | 87, 92-9, 101          |
| Steam railways.....                    | 244-5                  |
| Steel and iron industries.....         | 210, 212               |
| Survey of production.....              | 10, 138-41             |
| Symbols used in handbook.....          | 6                      |
|                                        |                        |
| Taxation, federal.....                 | 12, 13, 14, 299, 300-2 |
| — income.....                          | 299, 300-2             |
| — municipal.....                       | 307-8                  |
| — provincial.....                      | 303-4                  |
| Telegraphs and cables.....             | 256                    |
| Telephones.....                        | 256-7                  |
| Television and radio.....              | 130-1, 257-62          |
| Temperatures and precipitation.....    | 58                     |
| Textile industries.....                | 210, 213               |
| Theatres, motion pictures and.....     | 131                    |
| Tobacco.....                           | 166                    |
| Tourist trade.....                     | 292-3                  |
| Trade balance.....                     | 15, 279, 282           |
| — domestic.....                        | 265-76                 |
| — foreign.....                         | 14-6, 249, 279-93      |
| — retail.....                          | 12, 265-70             |
| — tourist.....                         | 292-3                  |
| — trends in 1950-52.....               | 281-4                  |
| — wholesale.....                       | 271                    |
| — world, Canada's place in.....        | 279-80                 |
| Training, vocational.....              | 236, 241               |
| Transportation.....                    | 231, 243-56            |
|                                        |                        |
| Unemployment insurance.....            | 97, 238-40             |
| Unions, co-operative.....              | 272-3                  |
| — trade.....                           | 238                    |
| United Nations, Canada and.....        | 37-9                   |
| Universities and colleges.....         | 107-8                  |
| Urban population.....                  | 64-6                   |
| — centres, manufacturing in.....       | 218                    |
| — transport services.....              | 245-6                  |
|                                        |                        |
| Vehicles, motor.....                   | 12, 210, 211, 247, 248 |
| Veterans affairs.....                  | 99-103                 |
| — allowances.....                      | 102                    |
| — Charter.....                         | 100                    |
| — disability or death pensions.....    | 102-3                  |
| — Land Act.....                        | 102                    |
| — loans.....                           | 101, 102               |
| — treatment and welfare services.....  | 100-1                  |
| Vital statistics.....                  | 76-9                   |
| Vocational training.....               | 236, 241               |
|                                        |                        |
| Wage rates and hours of labour.....    | 232-6                  |
| War veterans' allowances.....          | 102                    |
| Water powers.....                      | 169-75                 |
| Weather stations, Arctic.....          | 59-61                  |
| Welfare and social security.....       | 87, 92-9, 101          |
| Wheat exports.....                     | 154                    |
| — production and value.....            | 10, 153-5, 158         |
| Wholesale trade.....                   | 271                    |
| — prices.....                          | 19, 273-4              |
| Woods operations.....                  | 180-1                  |
| Workmen's compensation.....            | 99                     |
| Writing, creative.....                 | 119-20                 |
|                                        |                        |
| Yukon Territory, family allowances, .. | 93                     |
| — fisheries.....                       | 198                    |
| — forestry.....                        | 182                    |
| — fur production.....                  | 202                    |
| — manufactures.....                    | 217                    |
| — minerals.....                        | 191                    |
| — old age pensions.....                | 94                     |
| — physical features.....               | 51, 53, 54             |
| — population.....                      | 63, 66, 68, 69, 70     |
| — production.....                      | 140                    |
| — water power.....                     | 169, 170, 171          |







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|                    |                                                                                   |                    |                                                                                   |
|--------------------|-----------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------|
| Province           |  | City               |  |
| County             |  | County             |  |
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